DEVOTED TO NAVIGATION, COMMERCE, ENGINEERING AND SCIENCE.

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Del Bel Isle & Windsor Ferry Co.

AROUND THE LAKES.

CLEVELAND, OHIO.

Captain Morris, who for many seasons has sailed the schooner R. B. Hayes, goes on the steamer H. A. Tuttle this year.

Captain J. H. Jacods, of Marquette, Mich. has appointed Paul Suratte master of the steambarge Otego. The captain has appointed Mr. R. E. Smithells engineer.

Mr. J. H. Jacobs, a well known vessel owner of Marquette, Michigan, is in the city on a visit. Mr Jacobs owns the Otego Monticello, and the Montmorency.

Ed W. Gilchrist, of Alpena, Michigan, owner of the Michigan, S. C. Hall, tug Sumner, Sam Flint, Nellie Mason, and propeller Garden City and others, was in the city yesterday, on his way to Buffalo.

Mr. Warren Walsh, late engineer of the propellor Bulgaria, has been in the city for the past week. Mr. Walsh left for Buffalo yesterday, and will sail next season as engineer of the propeller Roumania.

Captain Robert McNiff, who has taken great pains to keep range lights in position at S. Clair flats, north east bend, desires to realize on the trouble he has been put to during the last season, and hopes that the attention of our owners will be directed immediately to the fact that he must live through the winter months.

During the past few days, perhaps two weeks, we have missed the genial countenance of our friend J.C Grover from the shipchandlers' store of Grover & Son. This has probably been caused by the disease so prevalent throughout the lake region, pneumonia and throat trouble, but we have the pleasure of thinking that Chris will be on duty early next week.

In looking about town we met Mr. Huelsman, agent for the firm of Joseph Scheid & Son, Cincinnati, who was introducing a patent folding bed. The bed is so constructed that a child of ten or twelve years old could convert it to an elegant arm chair. It seemed to us that there could be nothing more convenient for a captain's cabin. The chair can be seen at Herig & Sons.

CHICAGO, ILL.

Special to the Marine Record.

The steambarge Fayette is in the Chicago Dry Dock Co's., dock for a thorough overhauling.

The schooner Naiad was sold by Davison & Holmes, for Goodnow & Hinds, to O. Hanson and others, Manitowoc, for $8,500.

Captain Robert J. Cowley, of the steambarge Bulgaria, and his wife, stopped off at Chicago for a day or two, on their return home to Lorain, from Arkansaw, where they have been visiting their friends.

The Chicago M. E. B. A., have their 14th annual ball at Brand's hall to-night, Wednesday. A large number of tickets have been sold, and a very large attendance is expected and every thing will assuredly pass off with great eclat. Next week you shall have full particulars.

The Dunham towing and wrecking company, have removed into their new offices at 210 south Water street.

The fine engine, building at C. F. Elmes, corner Fulton and Jefferson streets, for the Goodrich company's new steamer, is nearly erected, and will be shipped to Manitowoc to place on board the steamer the latter part of February. Chief engineer Elliott, of the Goodrich steamboat company, is here watching the progress of the erection the engine.

C. F. Elmes is converting the high pressure engine 20 by 26, of the steambarge G. W. Carter, into a steeple compound, 15 and 28 by 26.

Captain J. M. Comstock will command the steambarge Josephine the coming season.

P. H. Fleming and Co., have chartered the propeller Oneida, and schooners Carney and Zach Chandler, for lumber at $2 75 per m, for the next season, from Deer Park to Michigan City.

Captain J. Bellhouse, of Whitehall, will sail the schooner C. Harrison next season.

The steamship Wisconsin, Captain Thos. Honners, arrived here last Wednesday afternoon with 995 tons of pig iron, from Elk Rapids. Captain Honners reports no ice and very favorable weather. The Wisconsin left Saturday evening for Milwaukee. She will run between that port and Grand Haven during the remaining winter months.

The steamer F. and P. M. No. 2, Captain Joseph Russel, arrived here with salt, this week. Captain C. E. Moody, who will take command of her, when Captain Russel takes command of the F. and P. M., No. 4, vice Captain Duddleston, who is about to resign, was on board, getting used to his new charge.

Captain Thomas Scott, of the schooner Flying Cloud, was married on the 9th of January.

Andrew Miller will be chief engineer with Captain Jones on the steambarge White & Friant, next season.

Thomas Corrigan will be chief engineer with Captain Kilbeck, on the steambarge Robert Holland the coming season.

At Miller Brother's shipbuilding yard, the schooner America, went into dry dock for a general overhauling. Miller Brothers have contracted to build a tug for the Illinois stone company, to take the place of the tug Belle Chase, and receive her machinery. They have also contracted to build for Captain Bundy a gospel steamer, 80 feet long, 18 feet beam, 19 feet hold, to be ready for next season's good work to bring sinners nearer to heaven. C. F. Elmes will build for her a fore and aft compound engine 10 and 18 by 12, and boiler of ¼ inch steel, 6 feet diameter, 8 feet long, of scotch type, to be allowed 140 pounds steam pressure to the square inch. She will have a Trout wheel 5 feet diameter, which her engine will drive at the rate of 250 revolutions per minute. Miller Brothers are getting estimates of an electric light plant to enable them to do work at night, as well as day.

The schooner R. B. Hayes was chartered by Keith & Carr to load 50,000 bushels of corn for Buffalo, on private terms.

Captain Rardon, of Crosby, Rardon & McDonald's firm of vessel and insurance agents, has gone to Bay City this week.

P. H. Fleming and Co., vessel agents, sold the steamship Intercean, for the Escanaba and Lake Michigan transportation company, to Henry Watson, Buffalo. Consideration, $50,000.

P. H. Fleming & Co., chartered the schooners Emma C. Hutchinson, Michigan and Nicholson, for 175 000 bushels corn for Buffalo, at three cents per bushel.

Last Friday the Anchor Line accepted 150,000 bushels corn for Buffalo, at three cents.

Tonnage is now offering at three cents per bushel, but there are no takers.

Captain A. L. Fitch, of P. H. Fleming Co., is in Buffalo.

P. H. Fleming left for New York Wednesday night.

Captain Paul Harry, formerly of the schooners Thomas Parsons, Mary Lyon and Jennie Mathews, has on exhibition at H. Channon Co's. ship chandlery, a new marine signal code invented by him. It is made up of the English alphabet A to Z, contained in a case 30 inches high, 20 inches wide, 14 inches deep. On the top of the case the letters of the alphabet are placed in regular order with a key or button opposite each letter, to which a spring is fastened. the spring being attached to the letters which run on rollers at the bottom of the case, the letters are painted in black on light canvas, and are 26 by 18 inches in size. A lamp placed in the back part of the case lights up the letters as they are drawn up by the person using the signal, and the working of it is so simple that any person who can read and spell can use it, and the letters can be distinguished more than a mile at night by a good glass. The signal would be very useful on tows, and in fact on any steamship or vessel, either to report their whereabouts or for signals of distress. Captain Sam Shannon, of the steamship Chemung, and many other captains expressed great satisfaction for the signal, when they saw it worked. WILLIAMS.

MILWAUKEE, WIS.

Special to the Marine Record.

There is considerable repair work being done here by Wolf & Davidson They are putting a six inch bottom on the steamer Progress, and also raising her floor by putting in additional keelsons and assistant keelsons, and making her bilges solid, and steel keelsons 28 inches in width by one inch thick on each side of her main keelsons, bolted through and through, and running full length. The steamer Robert Holland is also receiving steel arches 18 by ¾ inches, new decks, and other repairs. The schooner M. E. Tremble is getting new upper works consisting of rail, stanchions, covering board, etc., and I will give you the details in full next week, as I don't want to occupy too much of your valuable space, but will devote a little of it to these infernal whales, who smoke all of the shipyard pride tobacco, and carry off all Steve Smith's clay pipes. Steve breaks in clay pipes for all the boys without complaining. The first whale I will call your attention to is, (but hold on), I shall make a coterie of them all, because, if I mentioned them singly my article would be longer than a methodist's firstly and secondly, and something after the same style and the whales would think I had reformed and that same would astonish them.

Captain Travers of the Progress is learning to chew navy, smoking on a pinch, and he and Captains Lon Vance and Jim Calbick talk about the fun they used to have in the Bermudas, catching cyclones, eating young sharks, etc. It was Bermuda sun that colored Calbick's whiskers. Lou Vance tells about letting go his auchor off Cape Hatteras, and it went down and caught in the open hatch of a vessel loaded with railroad iron, and how they hove at the windlass for two days before the anchor came to the surface, and at the time the anchor came up his own vessel was hove down until she was decks two forward and there was a lot of rails bent across his anchor fluke, and they were marked 1492. They were very old. Lou is going to Bedloe island to stand up by the statue. Calvick tells about the cyclones which he encountered and which dismastered him thirty seven times on the voyage from Glasgow to Liverpool. He goes with Lou Travers, who confines himself to earthquakes, and tells how he used to wrestle with them in Mexico. The captains Leisk Bros., have visited us this week, also the inimitable evangelist, Captain Jamison. He is an ardent exponent of Bushnellism, and there is talk of having him investigate the dens of Wisconsin. The skipper is a noted investigator and will travel with Fred Starke. The whales will have a surprise on themselves this week, which I will give you in detail in my next. They have telegraphed Captain Marian Tinney to come and sing, "My Nellie blue eyes." He can beat Scanlon easily. They will also initiate Captain Joe Lampoh into the mysteries of the order of whales. Joe is so busy burning off paint and scraping the Tremble that he has not had time to let me interview him. Ajax Sullivan will entertain the club at the soiree this week, but that will do, you shall have that after it comes off, until then I must say in the language of Travers, Addios senors. CAPTAIN KIDD.

Captain Fred Starke gave a wine supper at Jake Best's cafe, in honor of some of his Buffalo friends.

Mr. Ed Smith of the well known firm, Brown & Co., Buffalo, paid us a short visit last week and left thoroughly impressed with the hospitality of Milwaukee friends.

The steamer J. Pridgeon, Jr., was let out of dock Monday, having received a number of new frames forward, new planking and partial new ceiling; had all of her hatches widened 2½ feet, and considerable other carpenter work. She is also having her machinery overhauled, and is going to receive new hoisting rigs throughout.

Engineer Charles Parsons, of Cleveland, has arrived in Milwaukee to take his place on the steamer Progress, and with engineer Riggs will finish the rebuild to her machinery.

Work on the syndicate boat at the Milwaukee Shipyard Company is progressing finely; they have her nearly in frame. They will soon commence on a new tow barge for the Marinette barge line.

Captain William Mack, of Cleveland, was in town last week and completed the purchase of the schooner Moonlight, which further cuts our once remarkable grain fleet to three schooners.

During the past fourteen months Milwaukeans have sold the steamers Kershaw, Barnum, Ballentine, Monohansett, and Durr, and the schooners Massasoit, Northwest, and Moonlight; but the fleet is increased by seven steamers, and with six large new boats building for the season of 1889, Milwaukee will still be well represented. There is some figuring being done toward adding two more steamers, but I am not at liberty to divulge at present. J.

PORT HURON MICH.

Special to the Marine Record.

Captain Slyfield, of this city, has sold the barge Lone Star to Mr. Wallace, of Detroit.

Martin Mullen, of Cleveland, is in this city, looking up business for his coal docks next season.

The name of the propeller California will be changed to E. S. Pease, in honor of her owner,

Captain McAllister, formerly of the steamer Sovereign, will command the C. P. R. steamer Alberta,

Captain Anderson will take charge of the new C.P.R steamer Keweetan.

There is but little ice coming into the river.

Ed J. Lynn, of the V. O. T. tug line at Chicago, is in this city looking after business for that line next season. The V. O. T. will have twelve first class tugs.

Mr. Sullivan, of Toledo, has purchased the powerful tug Roy, of Marine City, from the T. S. & T. Co.

Captain Will Hutchinson, of the Mecosta, and Captain Dave Hutchinson, of the Wocoken, are down in Canada visiting their father.

Captain Tom Cowan, of the Ogemaw, has returned from Toronto.

CLAYTON, N. Y.

Special to the Marine Record.

Schooner Gypsey, sunk in lower bay, has been stripped and abandoned for the winter. She lays in three fathoms water.

The steamer Pastime is having a new Scotch marine boiler manufactured.

Captain John Donnelly, has been appointed inspector of hulls at Kingston, to fill the vacancy caused by the resignation of Captain Dick.

E. G. Short is building a new engine for the yacht Calumet.

Captain H. W. Bogart has received his appointment as master of the Blanchard, and will leave for Detroit this week to oversee some changes that are to be made in her.

It is not settled yet whether the big steamer Rothesay will run on the river or go to Toronto the coming season. GOULD.

MARINE CITY, MICH.

Special to the Marine Record.

This winter has been one of the finest ever experienced in our city for shipbuilders and mechanics, and work is progressing finely.

The T. & S. T. Co., have made quite a change in their ownership of floateng stock, disposing of the old and replacing it with new.

The Marine Transit Co., are about selling their new steam barge, which they launched in the fall, and are about to take new stockholders, so it is whispered among the mariners. The vessel launched is nearing completion fast, and will be ready for spring service. She cannot help but class A1. The one in the stocks is in frame and will soon begin planking.

Captain of the steam scow Curtis is making necessary repairs, putting in new spars, etc. The Captain thinks he will put on new bows, which will lengthen her about thirty feet. Being a shipbuilper himself, he will do his own work.

Captain Henry Scott is putting on new decks and other minor repairs, at a cost of about $1,000. Captain Henry says he is surprised at the good shape he finds the Turner in.

Captain Ruvel is giving his barge Maria Martin, top sides and caulking, besides other repairs.

The T. T. company's boats will get a general overhauling.

Captain Mitchell's boats come out every spring looking as good as new.

The barge Sea Gull, which has quite a record, was purchased by J. C. Miller, & Co., this winter was hauled out some time ago. She will be converted into a steam barge.

The schooner Owasco, which was in winter quarters at the lower end of the Marine City Stove Co's dock, took it into her head that there would be plenty of good weather to make another trip; so, taking advantage of a heavy squall from the southward and westward, she pulled up the piles she was moored to and started on a trip alone. Mr. Henry Manchester being on the dock at the time, thought this would be a good time to become a captain and scrambled aboard. He took charge of her without any authority, and in so doing he kept her out of probably hundreds of dollars of expense to her owner. She fetched the Owen salt block about four miles above, where, Henry says, she would not steer any more but bound to make a landing right or wrong. On hunting up the reason for loosing steerage way, it was found that Captain Titus, her master, had carried salt from the Owen block through the summer. It is rumored around that the owners gave Henry five dollars. It will cost Mr. Manchester quite an amount for taking charge of a schooner under bare poles without papers.

We learned that Captain James Corrigan of Cleveland, was in our little city looking cross-eyed at the Morley boats, which are not second to any. When you see Captain Jim prowling around, there is going to be a change of owners of ships. The Morley steam ship on the stalks is all in frame and planking begun. She is the largest steamer ever built at this port, and we think will ten more than any barges on fresh water.

Messrs. Holland and Pringle's steamer is progressing to completion nicely. In a later issue your correspondent will write up her dimensions.

Messrs. Peter Wex and Henry W. Watson have bought the propeller Inter Ocean of the Delta Transportation Company of Marine City for, as reported, $50,000. The Inter Ocean was built at Detroit in 1872, measures 940 tons, and rates A2. She will be used for towing the schooners Champion and J. D. Sawyer, leaving the Potomac and Annie Vought to the St. Louis.

The steamer D. F. Rose and consorts Boscobel, Buckeye State, and Marine City are being overhauled at Marine City.

The D. F. Rose and tow have had a general overhauling under the supervision of Mr. Phil Kinyon, one of our most skilled builders. In the next issue of the RECORD will give dimensions of the balance of the fleet. MCNIFF.

BUFFALO, N. Y.

Captain W. Sutherland, last year on the schooner J. G. Masten, has been appointed master of the propeller Arabes.

C. H. Woodruff of this city, and Dodge & Co. of Tonawanda, have bought of N. S. Whipple, of Detroit, the steamer Arctic and consort Ogarita for $38,000. They will run in the lumber trade.

Captain D. Buchanan has sold his one quarter interest in the schooner Stampede to D. Gibbs for $1,000.

LAKE CARRIERS' ASSOCIATION

TO CONSIDER AND TAKE ACTION UPON ALL GENERAL QUESTIONS RELATING TO THE NAVIGATION AND CARRYING BUSINESS OF THE GREAT LAKES AND THE WATERS TRIBUTARY THERETO, WITH THE INTENT TO IMPROVE THE CHARACTER OF THE SERVICE RENDERED TO THE PUBLIC TO PROTECT THE COMMON INTEREST OF LAKE CARRIERS AND PROMOTE THEIR GENERAL WELFARE.

BOARD OF MANAGERS, 1888.

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MARINE RECORD—OFFICAL PAPER.

PRESIDENT CALDWELL'S ADDRESS.

To the Members of the Lake Carriers' Association

GENTLEMEN—Only ten months have elapsed since our last annual meeting, and yet we have accomplished in that period a very creditable amount of work. We have added to our list twenty new members, representing over 55,000 net tons. Nine of these are from Cleveland, and, although we have now a good representation in this city, there are still several vessel owners who have not yet joined us and who will, I trust, be enrolled today. Thus you will see that your association is steadily gaining in strength, and its activity and influence you can measure by the following record, which I take pleasure in presenting to you as the fourth annual report of your board of managers:

WRECKING LAWS.

During the first year of the existence of this association (1885), the subject of our wrecking relations with Canada was taken up, and it was then found that by an act of Congress approved June 19th, 1887, the president of the United States was authorized to extend free wrecking privileges to Canada at any time that she might grant the same privilege to us. No notice seemed to have been taken of this statute by the Canadian authorites, and at the instance of this association their attention was called to it and a request made for reciprocal action on their part. But about that time there arose the fisheries complications, which stopped, for a time, the further progress of negotiations. Early in March last it was learned that a bill had been introduced in the Canadian house of commons, by Mr. Kirkpatrick, to permit American vessels to aid vessels wrecked or disabled in Canadian waters, and our board, anxious to have negotiations with the Dominion authorities resumed, passed resolutions (*appendix A), calling upon the secretary of state to convey to the Canadian government the desire of the United States for the friendly relations contemplated by the act approved June 19th, 1878, and to urge upon them the desirability of their taking action necessary to bring about such relations. Copies of our resolutions were sent to the secretary of state, and to Mr. Francis McLennan of Montreal, who had them distributed among the Canadian members of parliament. We have reason to believe that a majority of the people of Canada were in favor of free wrecking, the entire Canadian press seemed to favor it, and many commercial and marine bodies petitioned parliament for the passage of the bill, but the lobbying of some Canadians owning wrecking plant defeated the measure, and it was rejected by parliament on April 17th. We understand that Mr. Kirkpatrick intends to again introduce his bill this winter, and he has been assured that it will pass parliament.

SAULT STE. MARIE LOCK.

In my last annual report I stated that a bill had been introduced in the senate, calling for an appropriation of $4,740,000 for completing the new lock and approaches at Sault ste. Marie. This was one of the first subjects discussed by your present board, and at their meeting, held March 3rd, resolutions (appendix B), were passed warning congress of the danger of the present lock becoming either disabled or insufficient to accommodate the rapidly increasing commerce of the northwest before the completion of the new one, and impressing upon them the urgent necessity of appropriating the sum asked for. The senate committee on commerce, to whom the bill was referred, were in favor of granting the appropriation, but as the sums already voted for other purposes had swelled the river and harbor bill to great proportions, and the engineer in charge of the work reported that $1,000,000 would be all that could be used advantageously during the year, they deemed it expedient to reduce the grant to that sum. Work is now progressing satisfactorily on the new lock, and as the time when the enlargement will be completed will depend, to a great extent, upon the rate at which the necessary appropriations are made by congress, we hope to be able, through our representation at Washington, to aid in pushing the improvement to an early completion.

CHICAGO BRIDGE REGULATIONS.

On March 1st we were advised that an ordinance had been introduced in the Chicago common council proposing to close the principal bridges over the Chicago river, between the hours of six and nine o'clock in the morning, and four and eight o'clock in the evening. This proposition seemed so wholly without reason that we did not believe the common council would entertain it seriously, but at the same time deemed it advisable to immediately appoint a committee of three to investigate its prospects and report what action, if any, they considered necessary to take. The committee after careful consideration of the subject reported in favor of obtaining, if possible, from the United States court, an injunction against the enforcement of the ordinance, but following closely upon the committee report came advices to the effect that the proposed ordinance had been abandoned, and further action on our part was therefore unnecessary. There is, at present, another proposed ordinance before the common council of Chicago which would place the opening and closing of the bridges under the exclusive control of the commissioner of public works. The board believe that such an arrangement might work better than the present arbitrary method of handling the bridge question, and we are not unwilling that the experiment should be tried.

INLAND LLOYD'S CLASSIFICATION OF VESSELS.

Last winter some of our members had occasion to complain of the improper classification of their vessels by the Inland Lloyd's, and brought the subject up at our annual meeting. It seemed to be the general opinion that the present method of arriving at classifications was unjust to the vessel owners, and a fairer method would be to have the vessels inspected by two men, one representing the Inland Lloyd's, and one the vessel interests, before being classed. A letter was read from the Inland Lloyd's stating that a meeting would be held at their office in Buffalo on March 15th, to hear criticisms and suggestions concerning the present method of classifying vessels. Accordingly, a committee of three was appointed to attend the meeting of the Inland Lloyds, and present the views of the association. The committee attended the meeting, and made their report (appendix C) which is replete with valuable and practical suggestions. Its principal feature is the recommendation that the Inland Lloyd's be hereafter composed of representatives of the underwriters and Lake Carriers' associations jointly, and that both interests have an equal voice in the rules for surveying and classifying vessels. Another committee of three was then named to take up this report, and to prepare and place before the board a plan, in detail, for carrying out the recommendations contained in it. A meeting of the latter committee was held at Cleveland on September 20th, and, after discussing the subject, it was deemed advisable to confer with the present Inland Lloyd's management before reporting any detailed plan. A meeting was had with that body in Buffalo, on December 21st, but the ideas of our committee and the Inland Lloyd's representatives were so far apart that nothing was accomplished, and it does not seem practicable at present to have a joint inspection and classification of vessels.

SIGNAL STATION AT MACKINAC, MICH.

While our last annual meeting was in session, a letter was received from Mackinac City stating that the observer in charge of the signal office at that point had been notified of the intention of the war department to abandon Mackinac station. Realizing that the carrying out of such an intention would be most injurious to the shipping interests of the lakes, we passed a resolution (appendix D), and embodied it in a letter to Lieut. Greely, the chief signal officer, setting forth our views and urging him to continue the Mackinac station in operation. Lieut. Greely replied, after some time, that upon his enquiring further into the condition of the lake stations, he had finally decided to continue Mackinac as a display station, the observer to receive full information as to the signals to be displayed, the position of the centre of storms, etc., the only difference being the discontinuance of the barometer, temperature and rainfall readings. He also stated that he had decided to open at Sault ste. Marie a full signal service station, through which he hoped to be able to make more accurate signal orders for Mackinac and the other lake ports than was then possible. The new station at Sault ste. Marie was opened on July 1st, and weather signals were there displayed until the close of navigation. A duplicate display was also made on the canal office, and bulletins posted there showing the progress of storms on the upper and lower lakes.

BRIEGING DETROIT RIVER.

Early in May there was introduced in the house of representatives, and referred to the committee on commerce, a bill authorizing the construction of a railroad winter bridge across Detroit river. Upon hearing of this we immediately took the subject up with our representatives at Washington, and requested them to keep a sharp look ut for the bill, and a board meeting was called for May 15th to consider the matter. At that meeting it was decided to draw up a petition against the bridging of the Detroit river, and place the same before the committee on commerce. In the meantime we were in active correspondence with our representatives in Washington with reference to the bill and its chances for success, and before our memorial was completed we received positive assurances that the committee would not report favorably upon the bill. Further action on our part was therefore rendered unnecessary at that time, but we have recently learned that the advocates of the measure are intending to again besiege the committee with arguments in favor of their project. We shall be advised by our attorney at Washington of any movement in the matter, and must then take such action as shall seem necessary.

Another project for bridging the Detroit river has now come up, in the shape of a bill to authorize the construction of a high railroad bridge across the river at Detroit. This proposed bridge would have only two piers in the river and would be high enough to clear the tallest masts. We have made diligent inquiry in regard to the new scheme and find that it is a private enterprise, and purely speculative; that the cost of such a structure would greatly exceed the cost of tunnelling the river, and that there is no likelihood of congress passing the bill. We have therefore decided to let the matter rest until further developments seem to render an action on our part necessary.

ST. CLAIR FLATS SHIP CANAL.

About the beginning of September several heavily loaded vessels grounded in the St. Clair Flats Ship canal, and, in their efforts to release themselves, raised sand bars in the channel upon which other vessels afterward grounded and blocked the canal for several hours. A board meeting was called for September 7th, to discuss the subject, but, before the arrival of that day, it had become apparent, from the repeated and serious blocking of the channel, that something must be immediately done to prevent the total suspension of the lake traffic. The Buffalo managers met hastily on the 6th, and agreed to advance, if necessary, a fair share of the amount required to dredge and make passable the channel in the canal. This agreement was tele-

[CONCLUDED ON PAGE 5.

*We wish to notify our readers that the appendices referred to in President Caldwell's address have been printed according to their respective dates, in the columns of this paper.

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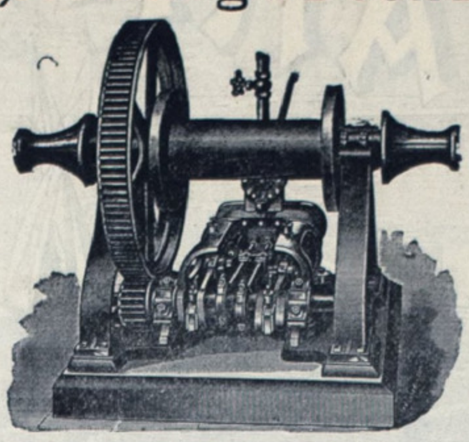
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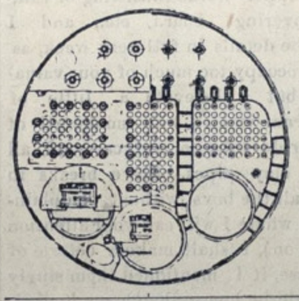
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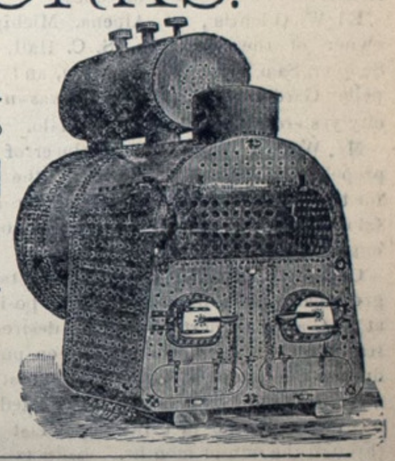

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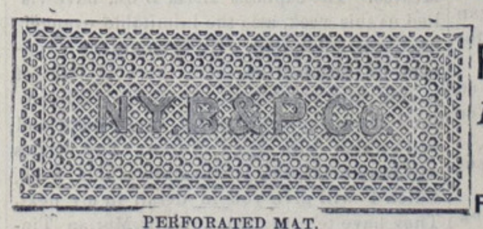

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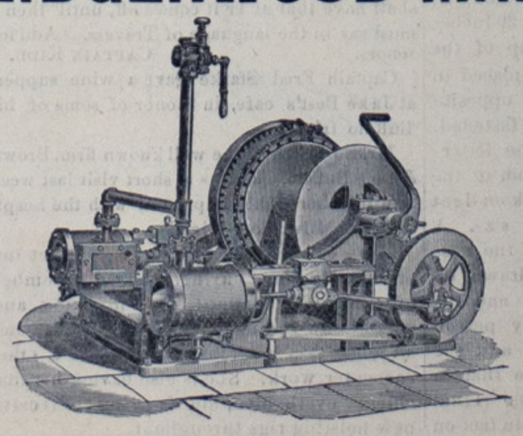
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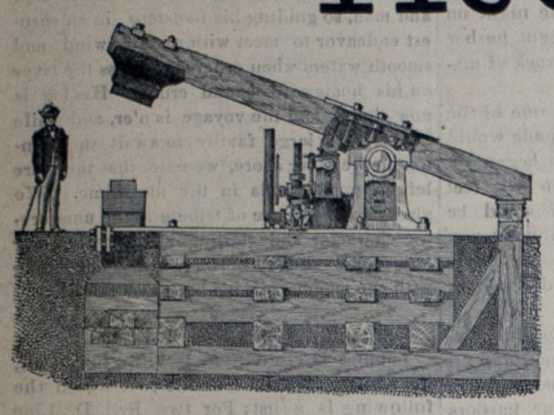

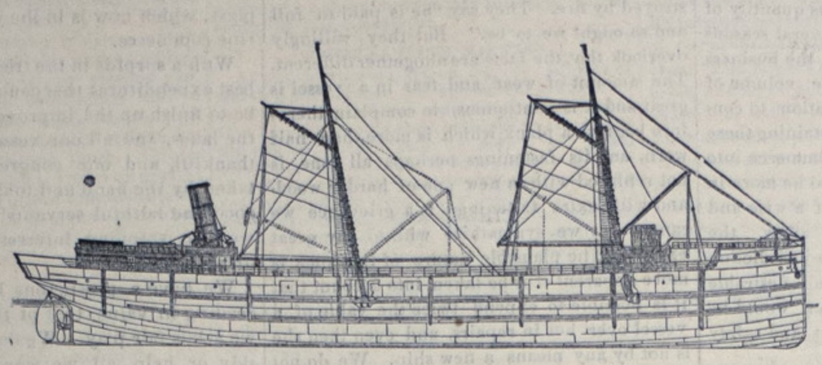

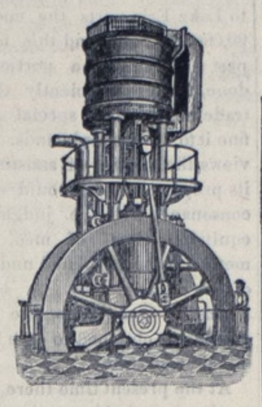

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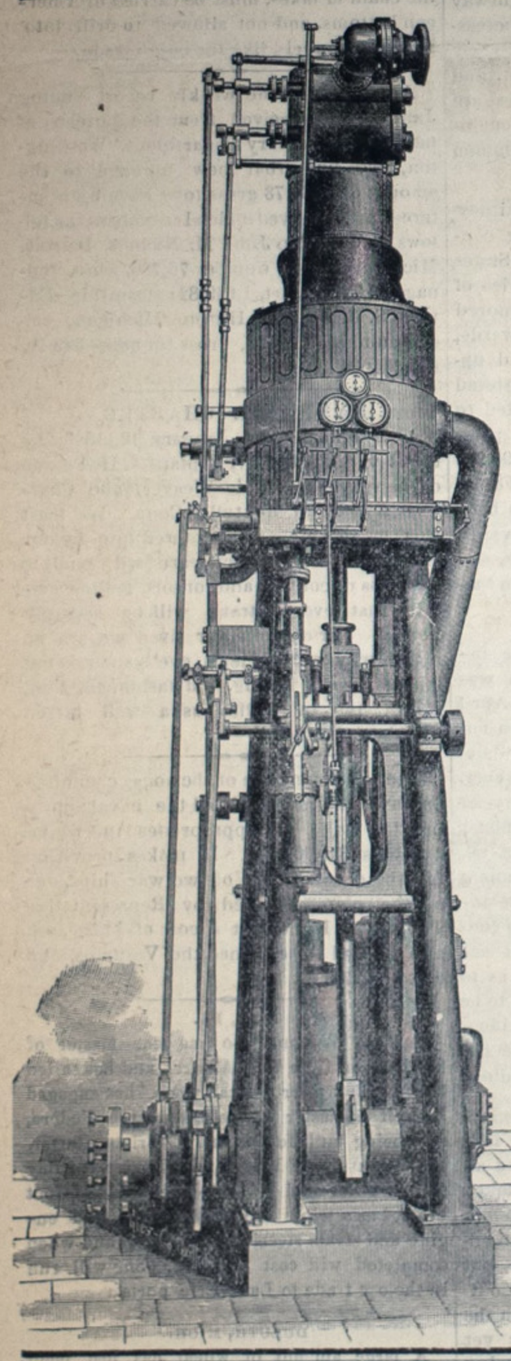

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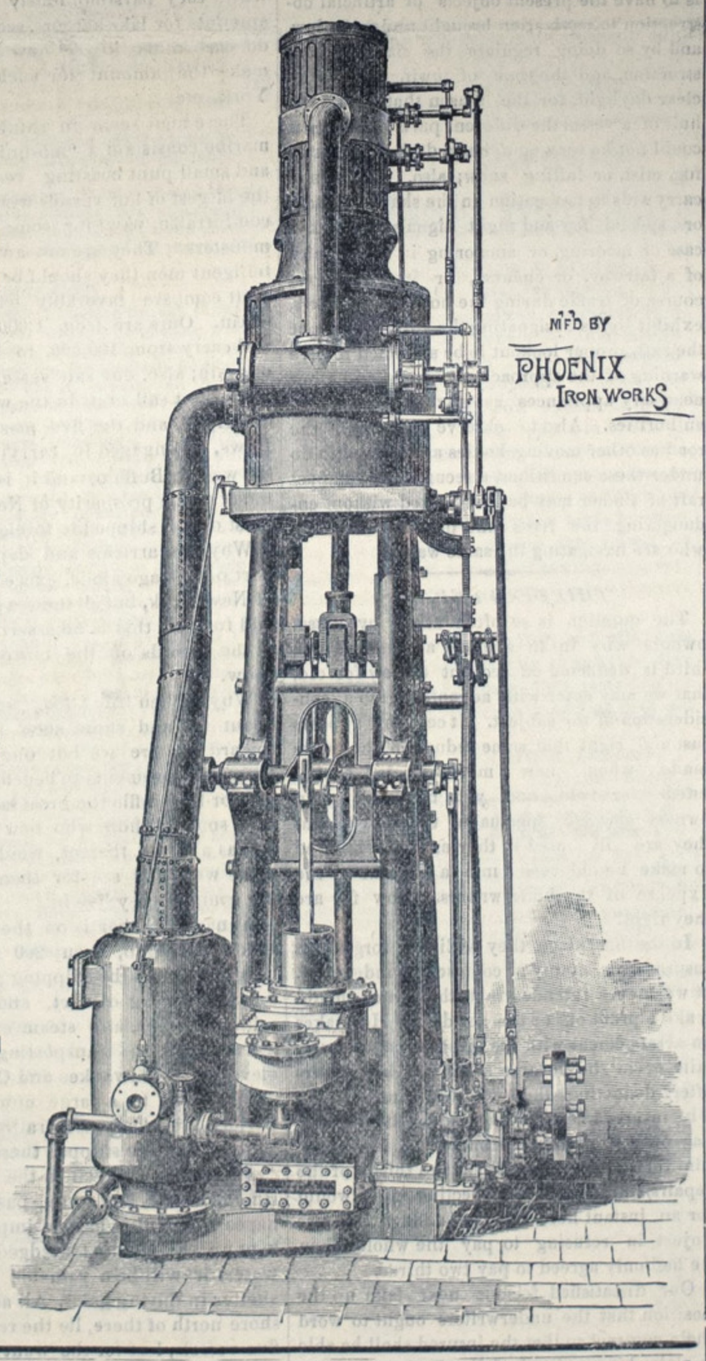

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MARINE RECORD—OFFICIAL PAPER.

RAFT TOWING.

The subject of raft towing has occupied the attention of the lake marine for a considerable length of time, and as the lumber men have from year to year increased the size of their log rafts it has been deemed advisable atter a thorough investigation into the rights of commerce to petition congress to prohibit the towing of rafts of logs or timber in the navigable waterways of the United States.

In connection with raft towing, however, there are several important questions to be considered, and as the international lines are being drawn closer than ever before, the question of jurisdiction must be a prominent one in the eyes of a judiciary committee at Washington. It has been said that if by act of congress the practice of raft towing was entirely abolished, lumber men would use vessels to convey their lumber from point to point with only the slight additional expense as represented by the loading and discharging accounts; yet, with this law in force the commerce of the lakes might still be hampered and annoyed by large, unwieldly rafts dragging along the narrow waters under the favor and protection of the Canadian laws to the nearest and most convenient point of shipment to an American port or otherwise, thus profiting foreign capitalists, to the detriment of our own industries, and calling aloud for an internatioual agreement to adjust the uneven balance of trade in this important product, which at the present time is almost exclusively in the hands of Americans. Hence it may be argued that any measures tending to relieve the inland marine of the constant menace to life and property involved in the meeting and passing of rafts must be absolutely international.

While fully alive to the importance of abolishing all artificial obstructions to the commerce and navigation of the great lakes, we can not endorse Mr. Farquhar's bill in its entirety, and it is scarcely probable that the bill will pass in its present shape, however righteous it may be, for if we admit the fact that water in time of peace is as free as air, then by the passage of this bill the liberty of the subject would be restricted in the present generation with no good result to the commerce of the future, and to carry the proposition a little farther we may say that each and every object afloat ought then to be strictly inspected, and in the event of their not being found fully qualified to meet the exigencies of the voyage, or transportation they should be totally condemned, and the rule would apply, in a measure, with equal justice to the persons having the object, whether raft or vessel, in charge for the specified transportation. Hence, if this course was strictly pursued, great expense and inconvenience would occur through the uncalled for interference of the law, while prosecuting an honest venture made illegal only by the sweeping terms of an injudicious law. The commerce which allows a firm to raft 75,000,000 feet of logs to the ports of Cleveland, Detroit, Toledo, and other points, and some 30,000,000 to Port Huron, over 200,000,000 feet from Lake Superior, and one firm alone transporting from Lake Huron to Lake Erie ports the enormous quantity of 90,000,000 feet, and this for several seasons past showing only a portion of the business done, argues sufficiently that the volume of trade now requires special legislation to confine it to the proper bounds. Entertaining these views the power of assisting commerce into its proper channels would seem to be more in consonance with the judgment of a wise and equitable class of men, and allow the method to be regulated under the jurisdiction of the maritime law. A safe and desirable means of transporting the timber would be ultimately obtained to the benefit and safety of all concerned.

At the present time there is no direct power to place restrictions on the traffic, consequently the entire lake commerce might possibly be placed at the mercy or good will of a syndicate of avaricious capitalists or lumber kings, who, wishing to transport their timber could in a measure legally obstruct other more valuable and important enterprises in the narrow waters of the rivers; hence, the necessity of the treasury department to at once take steps toward regulating this mammoth and increasing monopoly. Vessels have to be registered, inspected, manned, and conducted according to well known laws, and there is neither equity or common sense in allowing a large parcel of freight to be literally turned adrift on the highways of commerce without even the responsibility of ownership in a question of damages arising being attached to it. And a vessel prosecuting her voyage according to the whole requirements of the law has in many cases either to go ashore or take the certain chances of receiving more or less damage by running into it, as the many cases which have recently occurred amply testify.

The one point needful for the proper fulfillment of the laws of commerce and equity is to have the present objects of artificial obstruction to navigation brought under the law, and by so doing regulate the size, and construction, and the time of towing strictly to clear daylight, for the reason that unlike the hull of a vessel the different parts of the rafts could not be seen on a hazy, dark night, or in fog, mist, or falling snow; also, all rafts to carry aids to navigation in the shape of anchors, special fog and night signals, and in the case of mooring, or anchoring in the vicinity of a fairway, or channel, or in the direct course of traffic during the hours of darkness, exhibit lights designating the size and form of the raft, proper lookout to be stationed to give warning of the approach of vessels, and other necessary appliances as advised by the best authorities. Also to observe the rules of the road as other moving bodies are obliged to do under these conditions, a secure and compact raft of timber may be transported without endangering the lives and property of others who are navigating the same waters.

THIRDING REPAIRS.

The question is so often asked by vessel owners why in an average adjustment one third is deducted on account of new for old, that we may enter with advantage into a consideration of the subject. It certainly appears just and right that some reduction should be made when new material is substituted for old, and yet many of our owners try to persuade themselves that they are ill used if they are not allowed to make an old vessel into a new one at the expense of the underwriters. How far are they right?

In the first place they willingly forget that insurance is simply a contract of indemnity. It was never intended that the owner should make a profit out of the accident. He makes an arrangement with his insurer that in a certain event the insurer shall pay his repairs after deducting the one third in question. The insurer keeps his part of the bargain, he has only a premium sufficient to indemnify him for running the risk of two thirds of the repairs, and surely no reflecting mind would for an instant hold that the underwriter was unjust in refusing to pay the whole when he had only agreed to pay two thirds.

Our dissatisfied friends next take up the position that the underwriters ought to word their contract so that the insured shall be able to claim his repairs in full. Perhaps so, but the underwriter has not yet been found who would, except in the case of any but new ships or their iron or steel equivalants, agree to enter into such a contract. If he did he would soon be unable to pay even one third of the repairs, and the owner would be left to realize the truth of the old proverb, slightly altered, that "two thirds of a loaf isbetter than no bread". We have two thirds enough data to warrant us in warning our readers against having anything to do with underwriters who may tell them that their repairs will be paid in full; they will find they have got a wolf where they thought to find a sheep.

Again, letus consider how the owner would come out supposing that a first class underwriter would issue a policy excluding the application of the "one-third" rule. He would have to pay such a premium as would stagger him, and he would, if he cared to bear the burden for a year or two, find that the remedy was worse than the disease.

Another aspect in which ship owners often look at this matter, is taken from the fire insurance standpoint and they wish to convince the world that they are in the same position as a storekeeper whose stock has been destroyed by fire. They say "he is paid in full and so ought we to be." But they willingly overlook that the facts are altogether different. The amount of wear and tear in a vessel is great and it is continuous, to complain therefore because a plank which is more than half worn, and its fastenings perhaps all gone, is not replaced with a new one of harder wood, and with extra fastenings, is a grievance we cannot say we sympathize with to any great extent. The plausible nature of this plea is more apparent if it be taken into account that it is possible to expend twice the value of a vessel over her in repairs, and even then she is not by any means a new ship. We do not recollect anything in fire insurance like this but we have had some unsatisfactory instances in floating property.

On the whole, therefore, we are persuaded that our owners have not much to complain of. They go into this business on well understood, and at the same time reasonable, conditions, not creations of yesterday, but which have been in operation from time immemorial, and any attempt to supersede them would only lead to an unsatisfactory result which the present complainants would be the first to denounce.

FAIR PLAY WANTED.

FRANKFORT, MICH. January 26.

Special to the Marine Record.

Ahnapee harbor, Wisconsin, seemed to be singled out by the New Jersey congressman, McAdoo, on January 22nd, when he moved to strike out the appropriation for the improvement of said harbor. Just why the members from the east should oppose the improvements on the lakes, is a conundrum, and can be attributed only to their ignorance of the magnitude of the lakes and the craft that ply upon them. These congressmen, while they parsimoniously dole out small amounts for lake harbors, seem to try to outdo each other to see how large they can make the amount for such ports as New York, etc.

These men seem to think that the lake marine consists of a "mosquito fleet" sloops, and small punt coasting vessels; and that the largest of our vessels would only make a comfortable yawl for some of their ocean monsters. They are not aware (but as intelligent men they should be) that our steam craft compare favorably with those of the ocean. Ours are from 1,000 to 3,500 tons, and carry from 100,000 to 170,000 bushels of grain; also, our sail vessels, among them the largest sail craft in the world' "the Golden Age", and the five masted ship, David Dows, all engaged in carrying the grain of the west to Buffalo, and it is this that adds much to the prosperity of New York, where most of it is shipped to foreign ports.

Why, the arrivals and departures of the port of Chicago alone, exceed that, not only of New York, but all the sea ports combined; and further, this is no assertion, but a fact, as the records of the custom house will show.

Why then McAdoo, so much fuss about it, and show such foolish hostilty toward us, are we not one country, and these improvements to benefit all? Were it not for the traffic the great lakes furnish the east, some of those who now wax and grow fat, as a result thereof, would be forced to come west and see for themselves what a big country they live in.

Ahnapee harbor is on the west shore of Lake Michigan, about 200 miles north of Chicago, and is the shipping point of a large wheat growing district, and quite a fleet, sail in summer, and steam craft in winter, are engaged in transporting grain to the elevators of Milwaukee and Chicago, giving employment to a large number of sailors. Beside this, cordwood, railroad ties, cedar timber, etc., are shipped there.

All vessels engaged in the north Wisconsin and Green Bay trade, pass close by Ahnapee, and if the harbor improvements are kept up, the channel dredged, giving deep water, it will be a valuable harbor to seek shelter in during gales. All along the rocky shore north of there, lie the remains of many fine vessels, lost for the want of a harbor to run into during the time of distress. The barges that foundered near there two years ago, with loss of their crews, would have been saved, and their crews alive to day, had congress furnished the means to make it a safe place to seek. The writer has driven across the mouth of the harbor on dry sand with a team in 1871; since then it has been improved, but so slow that the citizens seeing the work done was for naught, and despairing of help from the department, raised an appropriation, and continued the work at their own expense, in piling, etc.

During a gale one night in 1872 the writer with two men were drifting before it, having left Horn's pier at dusk, in a large open decked boat, rudder gone, and an oar used for steering boat, half full of water, only fore sail hoisted, freezing. One man had succumbed, and the other two most perished, were most happy mortals, to sight and make this same Ahnapee harbor, even though the channel was not deep enough to allow the craft to enter, but dashed her up on a sand bar and were saved. We took our sails, made a tent and camped for the night on the bar, between the government harbor piers, which now is in the very track of marine commerce.

With a surplus in the treasury, one of the best expenditures that could be made would be to finish up the improvements began on the lakes, and all our vessel men will feel thankful, and our congressmen could be taken by the hand and told, "well done you good and faithful servants" and the entire western shipping interest would shout in unison, "amen".

We have a prosperous lake marine, exceeding in value that of the ocean, and all we ask is fair play. We do not ask for subsidy or help, all we want is our harbors finished, our waterway deepened, and we, of the former wild and woody west, have enough "get up and get" to take care of the rest.

As far as Ahnapee is concerned, we say, give Anna, a show, she's all right.

CHARLES BURMEISTER.

"FIGURES don't tell the truth all the time. Take a single link of a ship's chain cable: It is oval, only there is a short bar, a "stud" sailors call it, joining the sides together.

Now, the result of careful experiment shows that the addition of the "stud" adds one-quarter to the strength of the link. See "Luce's Seamanship," page 282.

Another rule, the result of equally careful and thorough experiment, shows that to take out the stud decreases the strength of the link only one-fifth. See Luce, page 283. Now, if putting the "stud" in increases the strength of the link five-twentieths, and taking the "stud" out decreases the strength only four-twentieths, the difference is evidently a gain in strength, and yet the link is exactly as it was in the beginning. If now, it increases the strength of the link by one-twentieth to put in a stud and straightway take it out, why can we not go on increasing the strength of the link indefinitely by putting the stud in and taking it out, and repeating the operation? Luce's rules are accepted as infallible, and yet the conclusion arrived at does not look like common sense."

THE annual report of Secretary Whitney says that when all ships now being constructed are completed the United States navy will rank second among the navies of the world in the possession of unarmored cruisers having 3,000 tons and upwards, and possessing a speed of 19 knots and upwards. In 1861 the tonnage of registered vessels of the United States amounted to 2,642,628 tons. From 1861 up to the present time, the tonnage has decreased 1,492,926 tons, from which we have never recovered. Since March, 1885, contractors have been obliged to construct ships that have 10 horse power to every ton of machinery, and nothing under the standard has been allowed.

IT HAS been generally stated that the international marine conference, which was to have been held at Washington in April next, had collapsed through the inattention of the British government to appoint delegates. We are pleased to note, however, that such is not the case for the secretary of state has received from Mr. Phelps, minister of the United States to Great Britain, a telegram stating that the British government has notified him of its acceptance of the invitation to the international maritime conference to be held in Washington this autumn, subject to certain reservations as to the nature of the particular questions to be submitted, and to the necessity of ratification by the powers represented, before the decisions of the conference become binding.

THE activity in the iron ore trade gives promise of a prosperous season for the lake craft, every indication now points to an earlier, and former freight, than was taken up last spring, and charterers will no doubt be eager to secure tonnage, notwithstanding the large number of new boats put afloat. We believe that the increased output from the mines will keep pace with the addition, and while no charters are yet placed, we have heard of inquiries being made in this direction.

A hearing was given by the house committee to persons interested in the proposition to build a bridge across the Detroit river at Detroit. The committee decided to report a resolution directing that a board of army engineers be appointed to consider and report upon the matter.

OBITUARY.

Captain William Smith, who was well and favorably known in marine circles for the past forty years, has passed away after a lingering illness at the home of his son-in-law, D. A. Ballkins, Muskegon, Mich. Captain Smith was born in Unisland, Holland, in 1822, and commenced sailing on fresh water in 1845, continuing to follow his profession up to the time he was called away. As a record of his steady and practical service we find that he sailed in the employ of Martin Royerson for eighteen years as a trusted and valued master, and was respected by all who were brought into contact with him. He sailed along on his path of life with an upright, fearless, and conscientious knowledge of his duty to God and man, so guiding his footsteps in an earnest endeavor to meet with a fair wind and smooth waters when ordered to cross the river on his homeward bound cruise. His log is now closed and the voyage is o'er, and while he has left a large family to await the reunion on the other shore, we note that they are left in good hands in the meantime. We gladly pay our mite of tribute to the unswerving character and sterling attributes of our late friend and subscriber, truly condoning with the members of his bereaved family.

LIFE RAFTS.

Thomas Drein & Son, Wilmington, Del., have been making life rafts, of which the following is a list: For two Red D. Line steamships of New York—eight 24 feet Metallic life boats; four 22 feet life boats; four 24 feet wooden life boats; eight large sea life rafts. Merchant & Minners' line steam ship—three 22 feet metallic life boats; one 24 foot square stern metallic life boat; one 20 foot wooden tip boat and sea life rafts. Ocean steamships building in Bath, Maine, —four 22 feet metallic life boats, life rafts, and corkdip preservers; one metallic life boat for New Boston fire boat; two metallic life boats for Thames Tow Boat Co., New London, Canada; 23 feet metallic life boats for large schooner; 16 feet metallic yawl boat for large schooner. Several lots of cork tip preservers; several orders in from the lakes for boats.

THE attention of all persons interested in the carrying trade of the great lakes, and especially the large steamship lines under the American flag, should be directed to the scheming of the Canadian Pacific railroad in secureng franchise to form an outlet on our eastern seaboard, for their increasing volume of trade. Our imports and exports, so far as regards transportation on the chain of lakes, must be carried in American bottoms, and not allowed to drift into foreign channels, like the ocean trade.

ACCORDING to the weekly report ending January 26, received from the bureau of navigation, treasury department, Washington, we find that new tonnage to the amount of 2,668.73 gross tons have been entered, and received official numbers as follows: steamship John M. Nichols, Detroit, Michigan, official number 76,786, gross tonnage, 2,126.03, net, 1,649.82; steamship Edward S. Pease, Port Huron, Michigan, official number, 136,025, gross tonnage 542.70, net, 399.06

HYMENEAL CHARTER.

At Bozrah, Conn., January 17, 1889, by the Rev. S. J. Weaver, Captain J. H. Perene of the schooner Jennie Weaver, and Charlotte Averill, of Montville, Conn. We trust that the above charter, entered into by our esteemed brother ropeyarn will tend to the bliss of convoy and consort, feeling certain that every strand will be securely tucked. For once in our lives we see no reason why a "maiden's eye" should not insure a good, lasting, old fashioned, long splice, the same life as a well tarred "Mathew Walker."

The sub-committee of the house commitee on naval affairs completed the naval appropriation bill. It appropriates in round numbers $20,000,000. It makes provision for the construction [of two war ships, one on the plan prepared by Representative Thomas of Illinois, at a cost of $1,500,000, and a vessel to be named the Vesuvius, at a cost of $450,000.

ERIE, PA.

Captain Wilson, who has been master of the Anchor Line boat Alaska, and has sailed the Allegheny for several years, has engaged himself as master of the steambarge Fedora, now being built for Messrs. O'Brien, Carter, and Strauber, of Erie, and Wheeler, of Bay City. The vessel is a 280-foot keel, 41-foot beam, has a triple expansion compound engine and steam steering apparatus, and when completed will cost $125,000. She will run in the ore trade to Lake Erie ports.

DULUTH, MICH.

A large amount of wheat has just been worked for shipment from the western elevators to Duluth, by one or two of the leading grain dealing firms of this city. It is stated that not less than 500,000 bushels are to come here under this deal alone, in the next few weeks, though figures a little smaller than that are made by others. It is sure, however, that receipts for the next month or more will be considerably larger than for some months.

PRESIDENT CALDWELL'S ADDRESS.

[CONTINUED FROM PAGE 2.

graphed to our representatives in Detroit, where a meeting of the vessel owners of that city was to be held the following day. At the same time I telegraphed President Cleveland, on behalf of this association, calling his attention to the serious delays caused by the obstructions in the canal, and asking him to give to Gen. Poe such special authority and instructions as would enable him to proceed immediately to dredge the canal. Similar telegrams were sent to the president by the Cleveland vessel owner's association and by the Detroit vessel owners. The president responded promptly, and authorized Gen. Poe to at once commence the necessary work of dredging, at the expense of the government. This Gen. Poe did with all possible dispatch, and by September 10th dredges were at work in the canal. But, upon discussing the subject at our meeting, it seemed necessary, in order to prevent a recurrence of the blockades, that the control of the canal should be placed in the handsof some responsible party, with full power to enforce any orders he deemed necessay to keep the passage clear. Resolutions (Appendix E), were therefore passed, urging Gen. Poe, if he had already the power so to do, to prohibit the passage of vessels through the canal drawing more than fifteen feet six inches, and requesting him, if he had not that power, to adise me what steps it was necessary to take to place the control of the canal in his hands. Gen Poe replied that the power to enforce orders was not vested in him, and that it would be necessary to have an amendment to the Act of July 5th, 1884, passed by congress, making it the duty of the secretary of war to prescribe such rules and regulations in respect to the administration of the St. Clair Flats ship canal as, in his judgment, the public necessity might require. Upon receipt of this reply I drafted and sent to the Hon. John M. Farquhar, at Washington, a lettter (Appendix F), pointing out the urgent necessity for the legislation, the requisite amendment, which was introduced, and passed, in the house of representatives on September 18th, passed in the senate on the 19th, and was signed by the President on September 26th, thus placing the control of the canal virtually in the hauds of Gen. Poe.

About the same time an inquiry came from Gen. Poe asking how in the judgment of the lake Carrier's association, the appriation of $75,000 to be expended on the St. Clair Flats canal and on Grosse Pointe bar, or the canal alone, at the discretion of the United S ates engineer, should be used. After inquiry and discussion of the subject it was decided to request Gen. Poe to spend $70,000 of the appropriation upon the permanent repairs needed at the canal, and the remaining $5,000 in removing boulders and lumps at Grosse Pointe bar, and resolutions (Appendix E, permanent improvements), were passed embodying these views.

Prior to the approval of the act placing the canal under control of Gen. Poe, we received a letter from that gentleman, complaining that the canal had been again blocked on September 21st, in consequence of the grounding there of an overloaded vessel, and that many vessel owners still seemed to disregard the known conditions and to continue to overload their vessels. A board meeting was called to consider the subject on September 26th. We, of course, could do nothing to prohibit absolutely the passage of overloaded vessels through the canal, but believing that an appeal by the board of managers to the good sense of the vessel owners would result in their seeing that their masters did not overload heir vessels, a resolution (Appendix G), was passed, requesting vessel owners to immediately instruct their masters to so load their vessels, for the remainder of the season, that they would not draw, on arrival at the St. Clair Flats canal, to exceed fifteen feet six inches, and certified copies of this resolution were distributed among the vessel owners. There is no doubt that this had good effect, as no complaint was afterwards made of any overloaded vessel attempting to pass through the canal.

As soon as Gen. Poe received official notification of the placing of the canal under his control, he immediately prepared a set of rules and regulations for the navigation of it, and submitted the same to our board for approval. The rules (Appendix H), seemed to us to be entirely fair, and were formerly endorsed by the board. They were then, after approval by the secretary of war, printed and circulated.

The work of dredging the canal is still in progress, and upon the opening of navigation this year the channel will have a depth of sixteen feet for a width of 200 feet.

CRIMINAL JURISDICTION.

In the early part of this year we discovered that there was no law under which seamen could be punished for breaches of discipline on ships engaged in the coastwise trade or the lake trade. This seemed to us to be a matter of vital importance, and we immediately prepared and sent to Washington a bill to amend the law. This bill was introduced and passed in the house of representatives, but, upon its being investigated by the judiciary committee of the senate, it was found that in its present shape the measure would clash with some existing state laws upon the same subject, and it was therefore retained by that committee, who, we understand, intend making a thorough investigation of all the state laws bearing upon the subject, and when this is completed, a bill will be drafted by them to take the place of the bill now in their hands. This measure we intend to push, and to, if possible, secure its passage before the opening of navigation this year.

RAFT TOWING.

At our board meeting held September 8th, the subject of the dangers to which vessels are constantly exposed from the towing of rafts in the lakes and rivers was discussed. It was the unanimous opinion of the meeting that the practice of towing rafts of logs or timber is a constant menace to the safety of life and vessel property, and that something ought to be done to lessen the dangers attendant upon it, but action was deferred for the purpose of making further inquiry as to what, if any, restrictions were placed by law upon the practice. Inquiry of the treasury department brought to light the fact that no restrictions whatever were placed upon the traffic. The opinions of all our members upon the subject were then sought by letter, and a number of answers were received, giving the maximum dimensions of rafts that could be handled with comparative safety, and what power should be used in towing them. At our meeting on November 1st the subject came up again, and the entire ground was gone over very thoroughly, with the result that resolutions (Appendix I), were passed, setting forth the manner in which the business of raft towing is at present carried on, condemning the practice as extremely dangerous to life and property, and directing the secretary to have drafted by proper counsel a bill, to be introduced in congress, prohibiting entirely the towing of rafts of logs or timber on or in the navigable waters of the United States, including the Atlantic, Pacific and gulf coasts and their harbors or inlets, and all inland lakes, rivers and harbors, and to submit the same for consideration at the next meeting of the board. A bill was drawn up on these lines, presented at the next board meeting, and approved, and was then forwarded to Washington, where it was introduced in the house of representatives on January 14th.

WASHINGTON STREET TUNNEL. (CHICAGO).

In Octoberlas we learned that certain changes and repairs were to be made in the Washington street tunnel, under Chicago river, which would amount practically to the rebuilding of that structure. For many seasons past this tunnel has been an obstruction and a source of danger to deep draft vessels, and there have been numerous cases of serious injury to vessels from striking there. Efforts had been made by the local vessel owners at Chicago to have the roof of the tunnel lowered, but, on account of certain demands for valuable franchises as compensation for carrying out the changes desired by the vessel men, and which the common council did not feel justified in granting, negotiations for the improvements were for a time a a standstill. A board meeting was called for November 1st, to consider the subject, and resolutions (Appendix J), were passed, calling upon the mayor and common council of the city of Chicago, to take the necessary action to ensure the depression of the tunnel roof to a sufficient depth to permit of the safe passage over it of our largest vessels, fully loaded. The mayor and common council took the matter actively in hand, and, at their meeting, held December 22nd, last, the following resolution was adopted:

"RESOLVED, That the commissioner of public works be, and he is hereby directed to enforce that portion of the ordinance of March 30th, directing that the Washington street tunnel shall be rebuilt and repaired in accordance with plans prepared by him, and so as to secure the lowering of the tunnel three feet to the level of the roof of the La Salle street tnnel, and that he communicate with the council in reference to the same."

It therefore seems evident that the common council of Chicago are fully alive to the urgent necessity of lowering the tunnel roof, and there is little doubt that the improvement will be made, whether at the expense of the owner of the tunnel or the city of Chicago.

MARINE CONFERENCE.

At our board meeting, held November 1st attention was called to senate bill 1851, providing for an international marine conference. The object of the conference, as stated in the bill, "shall be to revise and amend the rules, regulations and practice concerning vessels at sea and navigation generally, and the international code of flag and night signals; to adopt a uniform system of marine signals, or other means of plainly indicating the direction in which vessels are moving in fog, mist, falling snow, and thick weather, and at night; to compare and discuss the various systems employed for the saving of life and property from shipwreck, for reporting, marking and removing dangerous wrecks or obstructions to navigation, for designating vessels, for conveying to mariners and persons in erested in shipping warnings of approaching storms, of dangers to navigation, of changes in lights, buoys, and other day and night marks, and other important information; and to formulate and submit for ratification to the governments of all maritime nations proper international regulations for the prevention of collisions and other avoidable marine disasters." It was ascertained that the bill had passed both houses of congress, and was signed by the president, and that the conference was expected to meet at Washington on April 17th, 1889. Upon receipt of this information we addressed a letter to President Cleveland asking him if he would permit the association to recommend to him, for appointment as a delegate, one of the citizens to represent the United States. The president replied that we might submit to him, through the state department, any suggestions or recommendations we might desire, and a board meeting was then called for December 15th, to fix upon a party to recommend for the position. At that meeting the names of several gentlemen were mentioned, amongs them that of Robert Rae, of Chicago, whose nomination was strongly urged, and, after a full discussion of the subject, his endorsement was, upon motion, agreed to. A communication was thereupon sent to the state department asking his appointment. Mr. Rae is an admiralty lawyer of many year's experience and high standing in his profession, and his appointment would, we believe, give entire satisfaction to a majority of the vessel owners of the lakes.

LIGHTING ST. MARY'S RIVER.

In past season's vessels in the Lake Superior trade have lost valuable time because of their inability to run the St. Mary's river by night, and at our board meeting, held December 15th, the subject came up for consideration. A sketch of the river was presented, upon which were marked all of the lights that would be required to enable vessels to run it by night as safely as they now run the Detroit and St. Clair rivers, and after some discussion it was concluded to mark the lights upon a specially prepared chart for purpose of putting the matter more clearly before the light house board, and send the chart to Washington. This chart was procured, the lights marked upon it, and it was sent to our representative at Washington, Mr. Parsons, who advises us that the light house board at once made an estimate of the cost of the proposed improvements, and secured the insertion of the item in the civil appropriation bill, which was introduced in the house.

REPRESENTATION AT WASHINGTON.

The very satisfactory results obtained by Mr. J. T. Whiting during his comparatively short stay at Washington last winter made it apparent to us that the most effective way to secure needed improvements in the aids to navigation on the lakes, and to prevent legislation detrimental to vessel interests, would be to locate at Washington, permanently, an attorney to represent the lake marine interests. The subject had been talked over at various board meetings, and the names of several gentlemen mentioned for the place, but no definite action was taken until November 17th, when a board meeting was held to consider the matter. At that meeting it was decided to endeavor first to raise by contribution the amount, $5,000, required to pay for the services of an attorney for one year, and, if we succeeded in that, to then select and appoint a proper person. A circular letter was therefore sent out to the members of the association, explaining the object of the undertaking, and asking for a contribution of two cents per net ton to defray the necessary expense. The favorable responses to this request had amounted to something over $3,000 up to December 15th, and as it was important that we lose no time in placing some one at Washington to take care of our interests, at our board meeting held on that day we agreed to make the best arrangement for representation that the amount of the subscriptions would warrant. The board had already practically settled upon Mr. R. C. Parsons, of Cleveland, as a fitting representative, and it was decided to employ him at once without waiting for the whole amount to be subscribed. He was in Washington at that time, where he has since been and is now actively engaged in protecting and promoting the interests represented by this association.

MISCELLANEOUS MATTERS.

At our meeting on March 3d, the subject of starting out boats in the spring was brought up for discussion. It was conceded to be desirable that no boats should start before May 1st, but it did not seem practicable to induce all vessel owners to join in such a movement. It was therefore decided best to simply send out a recommendation from the association not to start any vessels, sail or steam, before May 1st. A resolution (appendix K), was passed and copies sent to all members of the association, and to other vessel owners. This recommendation seemed to be generally observed, as only a few steamers started out before May 1st.

At our board meeting, held October 10 h, it was suggested that as matters of importance connected with lake marine were liable to arise at any time, upon which the government officials at Detroit might wish to secure immediate advice from the leading vessel owners, the Lake Carriers' Association should have at Detroit a committee consisting of its managers at that port, who could at once be reached and consulted with, and it was understood that the proposition met with the approval of General Poe. It was therefore agreed that Captain Jas. W. Millen and Captain Eber Ward be appointed a standing committee at Detroit, upon whom General Poe or any of the government officials there may call for advice upon any matters connected with lake navigation, when they desired so to do.

About the middle of November notice was given by the light house board of their intention to begin soon the work of removing the buoys in the Detroit, St. Clair and St. Mary's rivers for the winter. I immediately took the matter up with Commander Elmer, inspector of the eleventh light house district, and requested him to replace the buoys with painted spars, and to let these latter remain until the last vessels had passed through the rivers. Commander Elmer replied promptly that the spar buoys in the St. Mary's river would be left down during the winter, and the iron buoys replaced by painted spars. The buoys in the St. Clair river he said would be left to the latest practicable date, and when it became absolutely necessary to remove them, the more important ones would be replaced by painted stakes.

Following are the misleading titles of some of the more objectionable measures introduced in congress during its last session, the passage of any one of which would have been very injurious to vessel interests:

To amend section 4463, chapter 2, revised statutes of the United States.

For the better protection of human life on merchant steam vessels of the United States.

To regulate lake shipping.

To prevent steam and sail vessels being overloaded, and for other purposes.

To amend sections 4488 and 4489 of the revised statutes requiring life saving appliances on steamers.

Resolutions (appendixes L, M, N and O), were passed, protesting against the passage of all these measures, and legislation upon them has been held in abeyance, upon our representations.

CONCLUSION.

In closing this report I desire to say that if members would more heartily co-operate with the managers in their labors, the interests of the association, which are the interests of every individual member of it, would be better served. As an instance of this want of co-operation, I will mention that, to a circular letter sent to our 86 members some time ago, calling for certain information upon an important subject, only 17 replies were received. It takes time and labor to prepare and send out these communications, and the importance to yourselves of the matters with which they deal should ensure for them attention. Suggestions, too, are always welcome, and it is to be hoped that members will in the future communicate freely to the officers anything that might be of benefit or interest to the association.

From the first year of our organization the work of the association has steadily increased, and at times expenses have been necessarily incurred which our limited revenues from dues has not been sufficient to cover. In several instances such expenses have been met by voluntary contributions from a few of the managers, when they should have been borne in fair proportion by all our members. This is unfair, and I deem it proper to suggest that you to-day take up the question of so amending our constitution as to permit of a fixed yearly assessment per net ton to be made upon all the members, sufficient to meet the necessary expenses of the association, such assessment to take the place of the present dues. This seems to me to be the only way to distribute the expenses fairly among the members. By order of the board,

S. D. CALDWELL, President.

TREASURER'S STATEMENT.

The treasurer's report for 1888-9 is as follows:

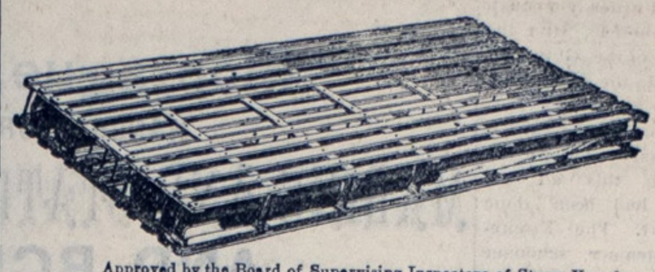
To balance March 3, 1888		$130 32
1887 annual dues		3 90
1888 annual dues		332 82
Special subscription account, J. T. Whiting's expense to Washington to protect and promote the interests of commerce of the great lakes		349 86
		$816 90
Paid secretary March 5, 1888, by vote of board	$100 00	
J. T. Whiting's expense to Washington to protect and promote the interests of commerce of the great lakes	349 86	
Printing and stationery	146 20	
Secretary's expenses to Detroit, annual meeting of L. C. A., March 3, 1888	25 15	
Chart of St. Mary's river and case for same, to be used at Washington	20 80	
Postage	18 98	
Incidentals	2 11	
Telegrams	85	
Balance on hand Jan. 23, 1889	152 95	
		$816 90

All old subscribers are kindly invited to remit arrearages, and readers not subscribers will be made welcome to our list.

DETROIT BOAT WORKS

—SOLE MANUFACTURERS OF—

Clark's Patent Metallic Life Raft.



SIZES AND PRICES.

Capacity, Persons.	Size.	Each.
4	3′ 2″ x 5′ 10″	$30
5	3 5 x 6	35
6	4 x 6	40
8	4 x 8	50
10	5 x 8	60
15	6 x 10	75
20	6 3 x 13 2	90
30	7 x 15	125
40	8 x 20	160

Approved by the Board of Supervising Inspectors of Steam Vessels.

☞Other Sizes and Proportions Made to Order.

Shops, foot Dequindre st. DETROIT, MICH.

The Herald's London dispatch says: Great Britain has not thrown any obstacles in the way of the proposed international maritime conference. The project originated in an act of congress, and no objection was made here to the conference with a view to decide certain questions connected with the rules of the road at sea lights and other matters relating to the practical work of navigation. To such points alone was the action of the conference to be confined. That was well understood on all sides,

When, however, the four parties had proceeded a little further, it was found that certain difficulties existed with regard to the application of principles likely to be discussed.

Great Britain, as having the greatest mercantile marine in the world, could scarcely be called upon to accept proposals which might have the effect of interfering with the ordinary course of trade.

The difficulties were neither created by the United States or England; neither has there been a disagreement between the two governments on the subject. No demands have been made on one side or rejected on the other. It was found, in effect, that the conference was impracticable, and if held could lead to no useful result. For the present, therefore, it is in abeyance, but the British government is perfectly with a view to the safety of vessels at sea, or any other question of interest to the powers which are engaged in carrying on international commerce.

At Baltimore yesterday, Captain Robert Mills, of the oyster schooner Chicora, was found guilty of brutally beating his dredgers, and was sentenced to one year's imprisonment and to pay a fine of $500.

We take pleasure in recommending the Mount Olive Erasive Liquid, manufactured by Captain D. A. McLachlin, for cleaning varnish and painted articles without injury to the polish. Price 40c per gallon. Address the Captain at No. 633 Trumbull ave., Detroit, Mich.

WANTED.

TUG.—A good towing tug, about 18x20 engine. Inquire of CAPT. E. S. SMITH, No. 30 Twelfth avenue, East Duluth, Minn.

Vessel Owners' Mutual Benefit Association.

OFFICE ROOM 8, NO 236 S. WATER ST., CHICAGO, ILL., January 31.

We, the executive committee, appointed at a meeting of the Vessel Owners' Mutual Benefit Association, held January 19th, 1889, respectfully invite offers and proposals from any responsible tug company now extant, or to be hereafter formed, to do our towing in the harbor of Chicago for the entire season of navigation of 1889, for one hundred vessels, more or less, who, through their managing owners, obligate their vessels, for every tow made by them in the Chicago harbor, during the season of navigation of 1889, to the said towing company, making said contract with the said executive committee.

Sealed proposals are invited, and will be received at the above address up to and including the 15th day of February, 1889, reserving the right to accept or reject any and all bids and proposals.

F. B HIGGIE, Secretary,
For committee.

ERIE RAILWAY.

The favorite and picturesque route to New York, Boston, and the East. The shortest and quickest route to Pittsburg, Washington and Baltimore, and the southeast.

New Central Depot South Water st. and Viaduct.

Change of time goes into effect Dec. 23, 1888.

Central or ninetieth meridian time, 33 minutes slower than Cleveland city time.

Until further notice trains will leave from the new Central Depot, South Water street and Viaduct, as follows:

DEPART.

No. 62, Mahoning Valley Accom	† 6 00 a m
No. 72, New York Express	* 8 30 a m
No. 72, Fast Pittsburg Express	* 8 30 a m
No. 64, Pittsburg Express	* 3 00 p m
No. 66, Leavittsburg Accom	* 4 20 p m
No. 68, New York Express	†10 50 p m
No. 68, Pittsburg Express	†10 50 p m
No. 70, Pittsburg Local Express	†11 45 a m
No. 74, Shenango Valley Express	† 4 20 p m

ARRIVE.

No. 65, Fast New York Express	*12 50 p m
No. 61, Pittsburg Express	† 7 35 p m
No. 67, Pittsburg Express	*10 55 a m
No. 65, Pittsburg Express	†12 50 p m
No. 63, New York Express	* 6 55 p m
No. 63, Pittsburg Express	* 6 55 p m
No. 69, Pittsburg Local Express	† 8 10 p m
No. 13, Youngstown Local	† 5 25 a m

*Daily. †Daily except Sunday.

☞This is the only route by which passengers can reach Cory, Elmira, Binghampton, New York City, and intermediate points without change. No change to Boston and New England cities.

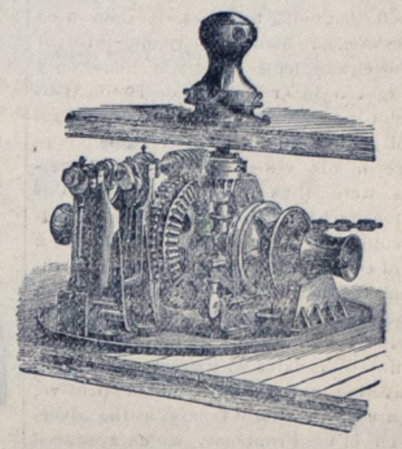
Baggage checked through to all points East.

Through tickets and information regarding the route can be obtained at office, 141 Superior street, and at depot N. Y., P. & O. railroad, South Water street and Viaduct, Cleveland.

A. M. TUCKER, Gen. Supt., Cleveland.
L. P. FARMER, Gen. Pass. Agent, New York.
W. C. RINEARSON, A. G. P. A., Cleveland.
M. L. FOUTS, Passenger Ticket Agent, 141 Superior street, Weddell House, Cleveland.

NEW PROVIDENCE WINDLASSES AND CAPSTANS.

The American Ship Windlass Company have received the following orders for the Providence windlasses and capstans since our last report:



Steam Windlasses—

1 new style steam capstan windlass for steamer building by Union Dry Dock Company, Buffalo.

3 new style steam windlasses for steamers building by Thomas Quayles' Sons, for Rhodes, Lockwood and Wilson.

1 new style steam windlass for steamer building by Wm. B. Morley, Marine City, Mich.

2 new style steam windlasses for steamers building for Lehigh Valley Transportation Co. by the Globe Iron Works Co.

1 new style steam windlass for steamer building by Craig Shipbuilding Co., Trenton, Mich.

2 new style steam windlasses for steamers building by James Davidson, West Bay City, Mich.

1 new style steam windlass for steamer No. 58, building by Frank W. Wheeler, West Bay City, Mich.

Steamers Nos. 262 and 263, building by Wm. Cramp & Sons Co., each a new style Providence steam capstan windlass.

1 steam capstan windlass for steamer Sardonex, Cananian Pacific Navigation Co., Victoria, B. C.

4 new style steam capstan windlasses for steamers Nos. 253, 254, 255 and 256, building by Delaware River Iron Works, Chester, Pa.

Hand Windlasses—

1 capstan windlass for vessels building for Lockwood, Taylor & Co., Cleveland, O.

1 capstan windlass for vessel building by Craig Shipbuilding Co., Trenton, Mich.

1 capstan windlass for vessel building by Milwaukee Shipyard Co.

1 capstan windlass for vessel building by W. F. McGregor, Grand Haven, Mich.

1 capstan windlass for vessel building by Mechanics Shipyard Co., Grand Haven, Mich.

1 capstan windlass for vessel building by Reibold & Wolters, Sneboygan, Wis.

2 capstan windlasses for steamers Arabia and Vanderbilt, Western Transit Co., Buffalo, to replace two Coffin & Woodward windlasses.

2 Providence pump-brake windlasses for vessels building by David Lester, Marine City, Mich.

2 pump-brake windlasses for vessels building by Frank W. Wheeler, West Bay City, Mich.

1 capstan windlass for vessel building by Benj. Boutelle, East Saginaw, Mich.

1 Providence pump-brake windlass for schooner Enos B. Phillips, of Boston, to replace a wood windlass.

1 Providence pump-brake windlass for steamer Wilkesbarre, to replace a Perley windlass.

1 Providence pump-brake windlass for schooner Fred Snow, to replace a wood windlass.

2 pump-brake windlasses for schooners building by New England Co., Bath, Me., for Capt. J. S. Phillips and Wm. B. Church, of Taunton. These windlasses both handle 2¼ inch chains.

1 pump-brake windlass for schooner building at Milford, Del., for Captain J. C. Davis.

Steam Capstans—

1 steam capstan for marine railway in Pensacola, Fla.

1 steam capstan for steamer building by Union Dry Dock Co.

3 steam capstans for steamers building by Thos. Quayles' Sons, for Rhodes, Lockwood and Wilson, of Cleveland, Ohio.

1 steam capstan for tug building by Atlantic Works, Boston.

2 steam capstans for steamers building by Globe Iron Works Co, for Lehigh Valley Transportation Co.

1 steam capstan for steamer building by Craig Shipbuilding Co.

3 steam capstans for steamers Manhattan, Massachusetts and Merrimac, of Inter-Ocean Transportation Co., Milwaukee, Wis.

1 steam capstan for Captain J. Mitchell, St. Clair, Mich.

1 steam capstan for steamer El Mar, building by the Wm. Cramp & Sons Co., Philadelphia.

1 steam capstan for steamer No. 58, building by Frank W. Wheeler.

2 steam capstans for steamers Nos. 262 and 263, building by W. Cramp & Sons.

1 steam capstan for steamer Orion, Boston Towboat Co., Boston.

2 dock steam capstans for Manhattan Elevated R. R. Co., of New York.

1 double barrel steam capstan for tug Ella Andrews, of New Orleans.

1 steam capstan for the Craig & McRoberts Sand Co., Kansas City.

4 steam capstans for steamers Nos. 253, 254, 255 and 256, building by Delaware River Iron Works, Chester, Pa.

Yacht Windlasses—

3 yacht pump-brake windlasses for yachts building by Sohn F. Mumm, Brooklyn.

2 yacht pump-brake windlasses for yachts building by H. Piepgrass, City Island.

THE STEAMER FRONTENAC.

Steam navigation on Lake Ontario began soon after the close of the war with the United States. The first steamer on the lake was launched at Ernestown, on the Bay of Quinte, in 1816. Curiously enough she was named the Frontenac, after the Count De Frontenac, one of the Governor-Generals of New France, in the seventeenth century, after whom also was named Fort Frontenac (Kingston), one of the earliest trading posts and military stations on the lake. Previous to this all the travel on the lakes had been done trade and by sailing craft. The Frontenac, was a side wheel steamer, schooner rigged, of seven hundred tons burdens. The length of her deck was one hundred and seventy feet, and the breadth thirty two feet. She cost £15,000. Her commander was Captain James McKenzie, a retired officer of the Royal Navy. She began her trips the year after she was launched. The next year, 1818, the Provincial Legislature passed a law to the effect that the usual space occupied by the engine and machinery in a steam vessel with the requsite stowage of wood, that being the material then used instead of coal, should occupy one third of the vessel, and that such vessels should only pay lighthouse or tonnage duties on two thirds of their measurements. At first Captain McKenzie did not have over-much confidence in his vessel, for early advertisements were thus qualified: "Steamboat Frontenac will sail from Kingston for Niagara, calling at York on the 1st and 15th days of each month, with as much punctuality as the nature of the lake navigation will admit of." He soon acquired confidence, however, in himself and his boat, and announced his dates with greater precision.

Traveling in these days was expensive, compared with what it is now, as the advertisement of the Frontenac, which appeared conspicuously in successive numbers of the Kingston Chronicle, occupying the width of two columns, with a cut of the steamer at the top, will show. This advertisement in the Chronicle, April 30, 1816, reads: "The steamboat Frontenac, James McKenzie, master, will, in future leave the different ports on the following days, Kingston for York, on the 11th and 21st days of each month. York for Queenstown, 3rd, 13th and 23rd days of each month. Niagara for Kingston 5th, 15th and 25th days of each month. Rates of passages from Kingston to York and Niagara £3. From York to Niagara £1. Children under three years of age half price, above three and under ten, two-thirds. A book will be kept for entering the names of passengers and the berth which they may choose, at which time the passage money must be paid. Passengers are allowed sixty pounds weight of baggage. Surplus baggage to be paid for at the usual rate. Gentlemen's servants cannot eat or sleep in the cabin. Deck passengers will pay fifteen shillings, and may either bring their own provisions or be furnished by the steward. For each dog brought on board, five shillings. All applications for passage to be made to Captain McKenzie, on board. Freight will be transported to and from above places at the rate of four shillings per barrel bulk, and flour at the customary rate, delivered to the different consignees. A list of their names will be put in a conspicuous place on board, which must be deemed a sufficient notice, and the goods taken from the steamboat will be considered at the risk of the owners. For each small parcel 2s. 6d, which must be paid on delivery. Kingston, April 28, 1819." The Frontenac was subsequently stripped of her machinery and converted into a schooner. In a paper of November 16, 1885, appears this marine note: The schooner Frontenac, Captain Murray, has discharged her cargo of wood at Mr. Beard's wharf, and is now loading at the railway wharf with through freight for Oswego. The Frontenac made the run up from Gananoque to Toronto in 17 hours in the fine breeze of Sunday."—*Toronto Telegram.*

AMERICAN STEAMSHIP LINES.

A subject to come up for action in the next Congress is that of establishing American steamship lines to foreign countries. "I have no doubt," remarked Senator Frye, "that the next congress will take steps which will result in establishing American steamship lines to foreign countries where none exist now. The South American trade will in particular be cared for.' It seems that there are more vessels under construction now in this country on the South American trade than in England. In both houses the Republicans have substantially agreed on a policy of paying more for carrying the mails in American ships than in those flying a foreign flag.

Two rafts of timber were locked through the old Welland canal to the sawmill of McCleary & McLean, Merriton. This is the first instance on record of navigation so early in the season as the 18th of January.

CATARRH CURED.

A clergyman, after years of suffering from that loathsome disease, Catarrh, and vainly trying every known remedy, at last found a prescription which completely cured and saved him from death. And suffered from this dreadful disease sending a self addressed stamped envelope to professor S. A. Lawrence, 212 East 9th st., New York will receive the receipt free of charge.

MONTAGUE IRON WORKS,

Montague,

MANUFACTURERS OF

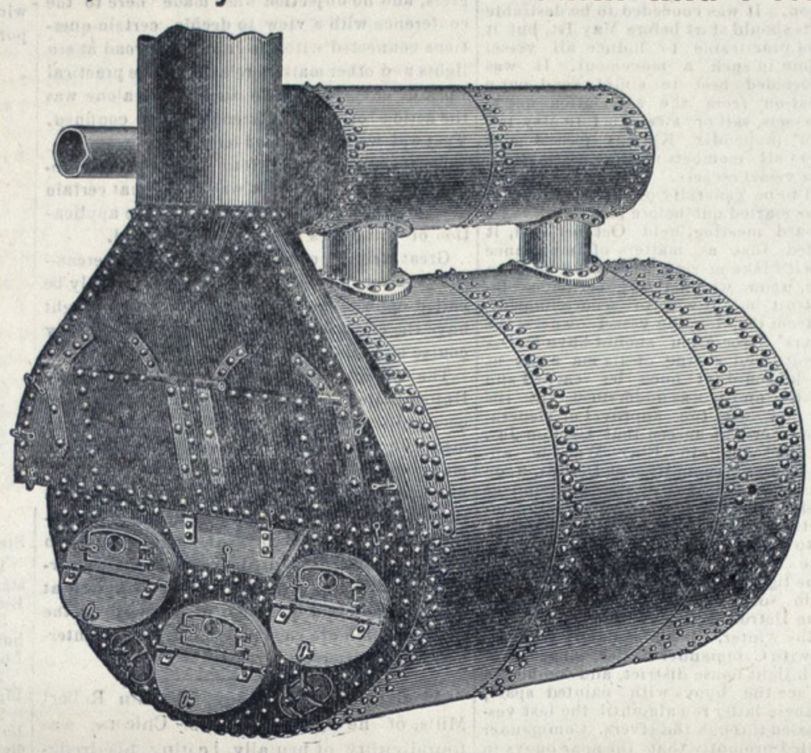
MARINE AND STATIONARY ENGINES

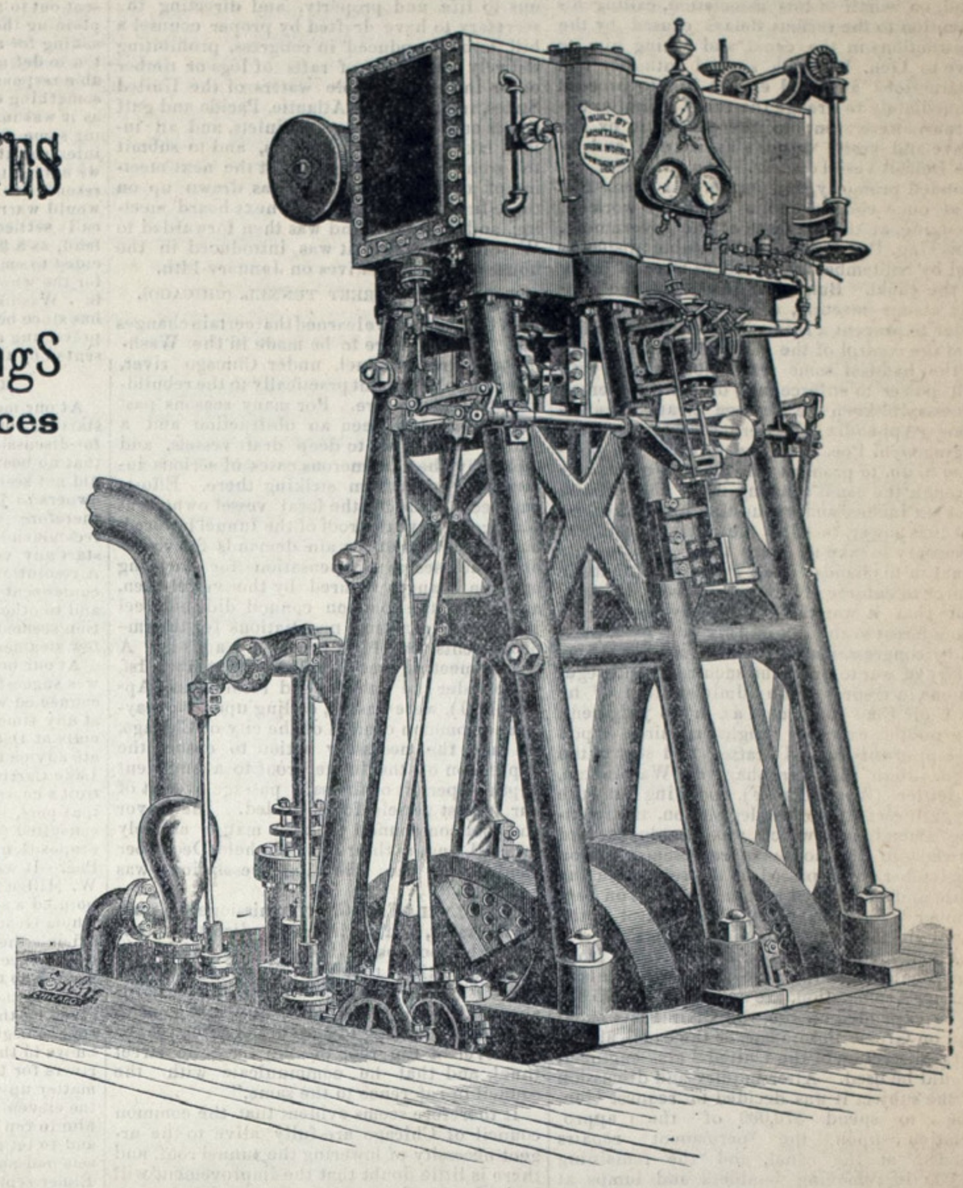
AND BCILERS,

Of Every Style and Size,

PROPELLER WHEELS and Heavy Castings

A Specialty. Send for Circular and Prices





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57 & 59 North Wells St., Chicago, Ill.
Telephone 3321.

STEAM FITTING AND HEATING,

Wrought Iron Pipe & Fittings

ENGINEER'S SUPPLIES.

General Jobbing Work Done Promptly.

Also, Proprietor of North Side Brass Works

Notice to Vessel Owners.

I HAVE CUSTOMERS FOR several barges, both steam and tow, and would be pleased to hear from each and every owner having vessels for sale, giving name, capacity, draught of water, light and loaded. If steam, condition and age of boiler, size of engine, etc. Correspondence solicited direct from owner, as I will not divide commission. Address,

J. F. WHITTEMORE.
Agent and Ship Broker. Bay City, Mich.

WANTED.

A GOOD MARINE ENGINE, 20x22, with or without boiler etc, Address box 1, branch office Maine Record, 252 South Water st., Chicago, Ill.

WANTED.

TUG ENGINEERS—Four first-class engineers from 25 to 35 years of age. Good wages to good men, who must give recommend from last employer. None need apply who are looking for a soft job. Apply to the DUNHAM TOWING & WRECKING CO., 234 South Water st.

UNITED STATES ENGINEER OFFICE, DETROIT, Mich., January 19, 1889.—Sealed proposals for excavating a lock pit for a new lock at St. Mary's Falls Canal, Michigan, will be received in triplicate at this office at 2 p. m., February 18, 1889, and then opened. Preference will be given to materials and plant of domestic production or manufacture, conditions of quality and price (import duties included) being equal. Attention is invited to acts of Congress approved February 26, 1885, and February 23, 1887, vol. 23, page 332, and vol. 24, page 414, statutes at large. The government reserves the right to reject any or all proposals. For further information apply at this office or at the U. S. Engineer office, Sault Ste. Marie, Michigan. O. M. POE, Col. of Engineers, Bvt. Brig. Gen. U. S. A.

FOR SALE.

STEAM BARGE PASSAIC, and four consorts. Capacity, 3 300 tons coal or 2,400,000 feet timber, Boat now laid up at Buffalo. For terms and price, inquire of J. M. JONES, 52 Griswold St., or C. C. BLODGETT, 242 Woodbridge St., Detroit, Michigan.

FOR SALE.

THE OWNER of a one third share in a fine handy steambarge 200 tons net, wishes to dispose of his interest. She is in good order and condition, and was doing work up to the middle of December. Her present valuation is $13,000 classed B 1. For further particulars, inquire, MARINE RECORD, Cleveland, O.

FOR SALE.

PASSENGER PROPELLER GOLDEN EAGLE, Thoroughly over hauled this spring, "Sutton" Engine 14×14, 100 pounds steam, runs 14 miles an hour easily, and carrys 90 people. Owner has no reute for her and will sell for what she is worth.

JAMES E. ENGLISH
East Saginaw, Mich.

FOR SALE—A HANDY THREE MASTED SCHOONER, well found and equipped, will carry 500 tons of coal, or 270 M feet of lumber. Rates, A 2½.

Also, a two-masted schooner; capacity, 425 tons of coal or 250 M feet of lumber. Rates, A 2½.

Both these vessels have been well kept up and are most desirable investment. Apply to PARKER & MILLEN, Detroit, Mich., or to THE MARINE RECORD, Cleveland, O.

WANTED—A GOOD SECOND HAND MARINE ENGINE not smaller than 16x16 nor larger than 18x20. Address, with full particulars and bottom price, E. W. HASKIN, East Saginaw, Mich.

WANTED.

SCHOONERS—20 to 40 tons, in good repair. Send full description and photo or drawing. Address, B. C. LINDLEY,
Box 479. Traverse City, Mich.

WANTED—TO BUY TWO TOW BARGES of about, 500,000 capacity, or two A 2 schooners. Address, CAPTAIN A. FLAGSTAD.
Montague, Mich.

FOR SALE.

TUG BOAT, STEAM YACHT, &c.

—AT—

Bell's Steam Engine Works,

BUFFALO, N. Y.

1 new Wooden Tug, 76 feet long, 15½ feet beam; engine 18x20, steel boiler 6 ft. 8 in. by 10 ft. 9 in.

1 steel and iron Steam Yacht 85 feet long, 14 feet 4 inches beam; compound engine 9x18, 12 in. stroke, independent condenser, with boiler all complete.

1 wooden steam yacht, "Little Mac," 60 feet long, 10½ feet beam; engine 8x9, Scotch steel boiler, 2 masts, and furnished all complete.

1 marine engine 10x12.
1 marine engine 11x16.
1 marine engine 11x14.
Apply as above. January, 1889.

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Sail Maker and Rigger,

20 and 22 Woodward Av.,

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LARGE STORAGE ACCOMMODATION FOR VESSEL OUTFITS.

Covering Bollers and Steam Pipes a Specialty

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SPECIAL EXPERIENCE IN DESIGNING, PRICES SELF-TRIMMING HATCHES COAL SHUTES AND BLAKE'S PATENT BOILERS.

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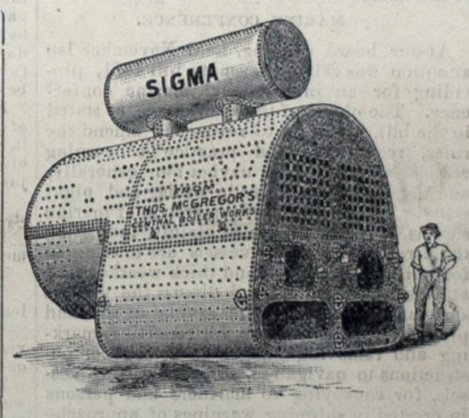

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CENTRAL BOILER WORKS

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Marine and Stationary

BOILERS,

—ALL KINDS OF—

Rendering Kettles, Tanks,

—AND—

SHEET IRON WORK.

FOR SALE.

Two Tugs and Three Marine Boilers.

Tug Uncle Sam.

Length 60 feet, beam 14 feet, depth 7 feet, draft 8 feet, engine 17 by 17; steel boiler 12 feet long, 5 feet 4 inches diameter, of ⅜ths plate, allowed 100 pounds of steam. Hull rebuilt in 1887. Price $5000.

Tug J. C. Ingram,

Length 54 feet, beam 15 feet 6 inches, depth 7 feet, engine 17 by 18, boiler 10 feet long, 5½ feet diameter, of ⅜ths plate, allowed 60 pounds of steam. Rebuilt in 1885. Price $5000.

A Marine Steel Boiler,

17 feet long, 7 feet diameter, allowed 110 pounds of steam, 6 years old, in good condition; price $800.

A Marine Iron Boiler,

14 feet long, 7½ feet diameter, allowed 80 pounds of steam, in good repair; price $400.

Marine Iron Boiler,

14 feet long, 5½ feet diameter, allowed 90 pounds steam, in good condition; price $300.

Apply to

DUNHAM TOWING & WRECKING CO.,
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Groceries and Provisions,

Fresh and Salt Meats,

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156 River-st., Cleveland, Ohio

No one should leave port without a box of M. M. Glekler's marine cigars.

A. J. MORSE & SON.

140 CONGRESS ST. BOSTON.

Scott's New Coast Pilot

Second Edition, Revised and Enlarged,

With new Maps and Illustrations corrected to the opening of Navigation in 1888,

IS SOLD BY

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AND BY THE PUBLISHER,

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River Machine Co.,

[Successor to G. R. GALE,]

171 River St., Cleveland, Ohio,

Are prepared to Manufacture and do General Repairing on Marine Engines and all other Machine Work.

We have also a full line of pulleys and shafting and are prepared to do all kinds of Stone quarry Work.

TEARE, WIGHT & CO.

FOR SALE.

SCHOONER FRANC MINER. Her dimensions are as follows: 68 feet keel, 17 feet beam, 5 feet hold, she has two masts and is three years old, in good shape, outfit and all. I also have a complete outfit for a tug or barge, engine 18 by 20, boiler 6½ by 14, shaft wheel and all complete. For particulars write to L. NAU, Green Bay, or CAPTAIN J. A. CUSICK, Fort Howard, Wis.

HARPER'S MAGAZINE.

In his historic drama "Commodus," in HARPER'S MAGAZINE for January, General Lew. Wallace has made a permanent addition to our literature. The author displays special skill in drawing contrasts. The drama might be called a study of contrasts. By them the several lines along which the action of the play moves combine naturally and lead up to the final climax with culmulative effect. J. R. Weguelin interprets the leading situations in his sympathetic drawings. "Commodus" does not monopolize, however, the interest of this number of HARPER'S. Many will turn at once to "The Clergy and the Times," by Archdeacon Mackay-Smith, and "Manufacturing Industry in Ireland," by Mr. Commissioner McCarthy, Dublin—both important contributions to current discussions. Mention must be made of the sustained interest in "Isabell's Story," by Annie Porter, and of the promising first installment of Constance Fenimore Woolson's "Jupiter Lights;" of the exquis te workmanship in the "Ballad of the Bird-bride," by Graham R. Tomson, and of the delicate communion with the poet's spirit, shown in the accompanying illustrations by F. S. Church. H. P. Wells writes on "The Beaver," Clarence Cook on "Russian Bronzes," W. W. Thomas, Jr., on "The Ancient City of Wisby," and F. C. Beach, Ph. B., ex-president of the Society of Amateur Photographers, New York city, on "Modern Amateur Photography." All four articles are fully illustrated. Professor A. S. Hill, of Harvard; has a capital essay on "Colloquial English," and Charles Dudley Warner continues his studies of the West in "Comments on Kentucky." There is a literary ingot in each one of the editorial departments.

W. Leslie, of Kingston Ont., has purchased the steambarge Isaac May and two barges, and also the schooner Neelon.

The Canadian Pacific railway is said to be preparing to run a line of steel steamers between Chicago and Winsor next season. The road is building a steel steamer at Owen Sound from plates sent over from England. She will be larger than the Alberta or Athabasca.

A small lake near Decker, Ind., is burning and emitting a peculiar sulphuric odor. Those living near it are preparing to leave. Some of the people are of the opinion that a great flow of oil has burst from a vein near the surface, and that the escaping oil has overspread the lake and been accidentally set on fire.

Considerable mystery sorrounds the mission to this country of a number of English naval officers, who arrived in New York on the Guion steamship Nevada, from Liverpool. Among them are Sir M. Macgregor, Vice-Admiral G. W. Waters, Flag-Lieutenant Earnest C. F. Trowbridge. The report was current in shipping circles that the party was bound for Hayti, to look after English interests on that island.

DIXON'S

GRAPHITE

PIPE JOINT GREASE

FOR STEAM OR GAS PIPES

makes a perfect joint that can be opened with ease in three years or thirty years. Bolts, screws, etc., smeared with this grease will not rust even in the dampest places. Write to Jos. Dixon Crucible Co Jersey City, N. J., for circulars.

FOR SALE,

STEAM BARGES—Two barges, vessels, and tugs. Also a side-wheel steamer, iron hull, allowed to carry 325 passengers. For information and particulars address,

DAVISON & HOLMES,
234 South Water st., Chicago, Ill.

FOR SALE.

MARINE ENGINE nearly new, includes bilge pump, hand pump and force pump, cylinder 17 by 20. Will sell cheap. Address.
K. BOX, Record Office.

FOR SALE.

HARBOR TUG for sale, cheap. This tug is in good repair and will be sold cheap, for cash, that is, $4,600. Engine 18x20, boiler 5 feet 6 inches by 11 feet, and allowed 100 pounds of steam. For further particulars inquire at 113 Franklyn avenue, Cleveland, O. CAPT. E. DAHLKE.

FOR SALE.

FISHING TUG suitable for light towing. New, in service but four months. Engine 9 by 10. Hull 48 feet long 11 feet beam. First class in every respect. Address,

H. BOX, Record Office.

FOR SALE

TWO MARINE BOILERS 7 years old in good order for sale cheap, 9¼ feet shell by 16 feet long for $1,000 each, ⅓ down balance one year, by
C. H. LANE, BUFFALO, N. Y.

FOR SALE.

BARGE COL. BRACKET—She carries 260M feet of lumber, 420 tons of coal. Had $900 worth of repairs last season. Fit out good. Price $1,600. Mention this paper. ED. J. KENDALL, Port Huron.

FOR SALE OR EXCHANGE.

FOR STEAMBARGE, A NEW PASSENGER steamer, will carry 75 tons freight, allowed 115 passengers. Will sell on easy terms or exchange for steam barge. Address, BOX 90, Petosky, Michigan.

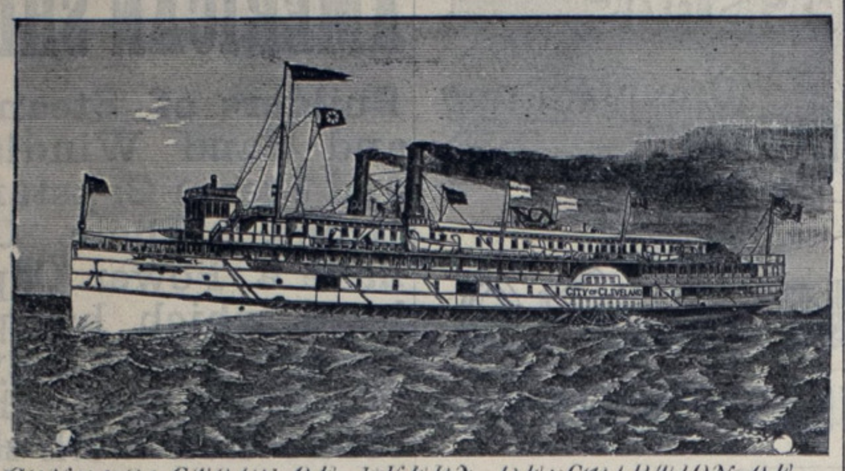
TUGS FOR SALE.

PATHFINDER Length 78 feet, beam 16 feet, depth 8½ feet, draws 9 feet. Rebuilt from the keel up in 1884. Is an extra fine looking boat and an excellent sea boat. Boiler 7 feet by 13 feet, built of ½ inch steel in 1887, and allowed 107 pounds steam. Engine is an extra smart 20 by 20, in perfect condition. Has copper steam and exhaust pipes. Engine was overhauled and lined up last winter. She is an extra good towing boat, a fast runner and is very economical, in fact she is a complete tug boat.

W. H. DOANE, Length 50 feet, beam 12 feet, draws 7 feet 8 inches Built in 1881. Boiler and hull rebuilt last winter. Boiler 4½ by 9 feet, allowed 110 pounds steam. Engine 14 by 14. Received new crank shaft and wheel and was over-hauled and lined up in October. Is a very handy little boat. Both boats are bargains. Reason for selling; we want to get out of the tug business and buy an interest in a steambarge. For prices and further information, address,

HARDY BROS. Toledo, Ohio.

DETROIT DRY DOCK CO.,



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SAMUEL F. HODGE & CO.,

MANUFACTURERS OF

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MINING MACHINERY AND

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Riverside Iron Works, 314 to 326 Atwater Street,

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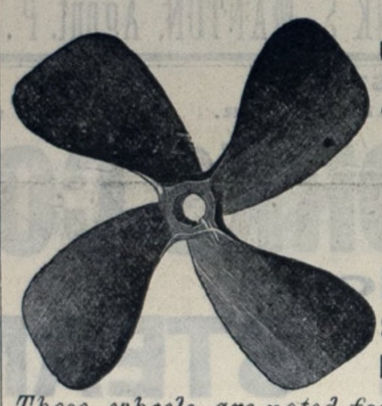
KING IRON WORKS,

BUFFALO, N. Y.,

MANUFACTURER OF



Triple Expansion Marine Engines,
Three Cylinder and Fore and Aft and Steeple Compound Marine Engines,
High and Low Pressure Engines
SECTIONAL PROPELLER WHEELS,
PROPELLER, TUG & YACHT WHEELS

These wheels are noted for their extra speed and towing power or aproportionate saving of coal.

PRICES QUOTED ON APPLICATION.

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(Successors to BAGNALL & LOUD BLOCK CO.) **BOSTON, MASS.**

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Self-Adjustable Five Roll Roller Bushed

BLOCKS.

which for DURABILITY and STRENGTH, are far ahead of any other make. One trial will convince any one of their GREATER PURCHASE.

Be sure and call for the **STAR BRAND** in ordering your Blocks.

...attention to our DIAPHRAGM PUMP, which will pump ...stroke and work easier than any other make in the ...a trial.

YORK STORE, 33 South Street,
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We also make a specialty of furnishing the handsomest style of blocks in the market for Yachts, with special designs to suit the place.

ARTHUR & BOYLAN,

Steamboats, Tugs, etc, Coaled Day and Night.

DEALERS IN LACKAWANNA ANTHRACITE COAL.

Woks: Ft. West River St., Whisky Island, C. P. R'y. Slip, Government Pier

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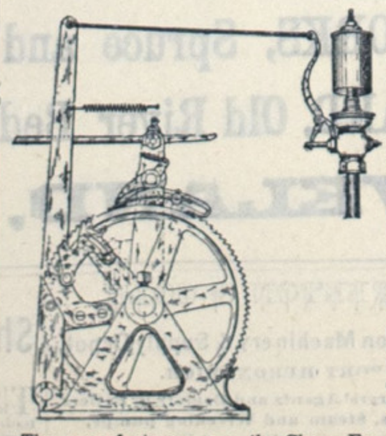

The manufacturers are the Chase Fog Whistle Machine Co., corner of Elm and Spruce streets, Cleveland, O.

Chase Fog Whistle Machine

This machine has been placed on the following steamboats during the past year: SPOKANE, WALLULA, KASOTA, CHARLEMAGNE TOWER, JR, YAKIMA, MISSOULA, SITKA, FAYETTE BROWN, R. J. HACKETT, FOREST CITY, SPARTA, HAVANA, VIENNA, OSCAR TOWNSEND, CITY OF CLEVELAND HENRY CHISHOLM, SUPERIOR, E. B. HALE, M. B. GROVER, J. S. FAY, R. P. RANNEY, SMITH MOORE, CHARLES J SHEFFIELD, IRA H. OWEN, CAMBRIA, CORSICA, J. H. OUTHWAITE, SAMUEL MATHER, R. R. RHODES, COLUMBIA, AURORA, OHIO, WM. EDWARDS, S. E. SHELDON, AUSTRALASIA, RALEIGH, BULGARIA, ROUMANIA, J. F. EDDY, HIAWATHA, THOS. ADAMS, A. P. WRIGHT, GLADSTONE, E. P. WILBUR, SOO CITY, E. M. PECK, ROBERT L. FREYER AND NORTHERN LIGHT,

To the President and Board of Supervising Inspectors of Steam Vessels:

Your committee to which was referred the "Chase Fog Whistle Machine" beg leave to report: "That we have carefully examined the same and find that it blows at regular intervals, being worked by the engine, thereby insuring regular and continuous blasts for any length of time that may be required and we recommend it or similar device to owners of steam ...is as an additional safeguard to navi...to.

H. S. LUBBOCK,
GEO. H. STARBUCK,
W. D. ROBINSON,
} Committee.

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NEPTUNE ANCHOR WORKS.

DEGRAUW, AYMAR & CO.,

MANUFACTURERS AND IMPORTERS OF

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CHAINS, ANCHORS, OARS, BLOCKS

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BUNTINGS, RUSSIA BOLT ROPE,

MARINE HARDWARE AND SHIP-CHANDLERS' GOODS GENERALLY.

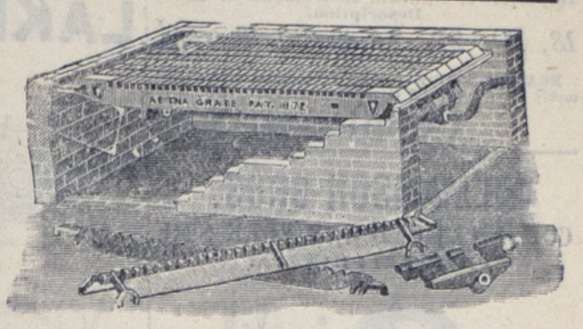
Nos. 34 AND 35 SOUTH STREET, NEW YORK.

THE ÆTNA GRATE.

G. C. BARNES, Agt.

This Improved Shaking Grate Especially Adapted to Burning Slack.

Glob Iron Works, manufac's.,
Office and Foundry, corner of Elm and Spruce-sts., CLEVELAND, O.

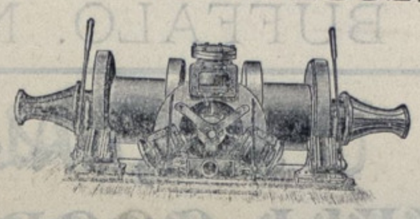


R. DUNBAR & SON,

—MANUFACTURERS OF—

Hoisting Engines, Single and Double Drums

FOR VESSELS & DOCKS.



Accompanying Cut shows our Double Drum Hoister, operated by ONE engine. Two hatches can be unloaded at once. Two machines in one, at low cost. Send for descriptive circular.

R. DUNBAR & SON,
BUFFALO, N. Y.

H. B. & G. B. BURGER,

Ship-builders and Contractors.

MANITOWOC DRY DOCK.

Dry Dock will admit Vessels of 1100 tons drawing 12 feet. Have also a set A Boxes in connection with the Ship yard capable of lifting Vessels of 350 tons. of large stock of SPARS CONSTANTLY ON HAND.

VESSELS DOCKED AND REPAIRED ON REASONABLE TERMS.

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DETROIT BOAT WORKS.

SOLE MANUFACTURERS OF

Clark's Patent Metallic Life Rafts.

HIGHLY INDORSED BY THE BOARD OF SUPERVISINGIN-SPECTORS.

Yawl Boats in stock 14, 16, 18, 20 and 22 feet long. **Life Boats** in stock 16, 18, 20 and 22 feet long.

Steam and Hand Steering Wheels to Order

Shops ft. of ORLEANS ST., DETROIT MICH.

THOS. DREIN & SON

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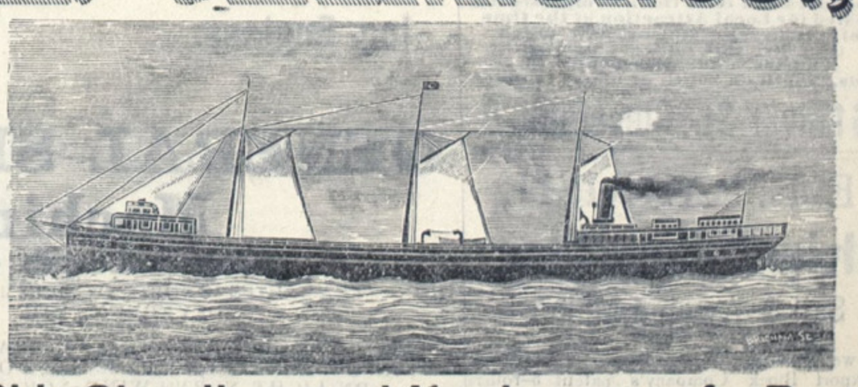

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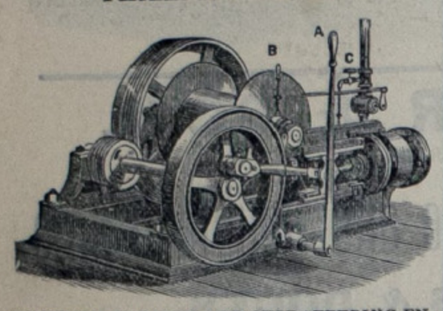

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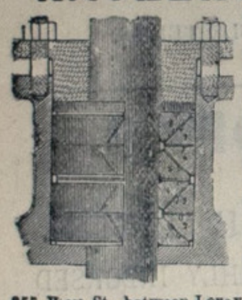

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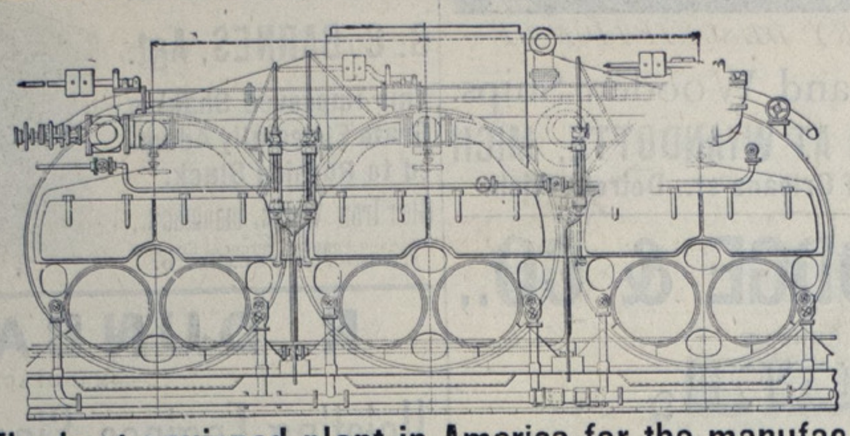

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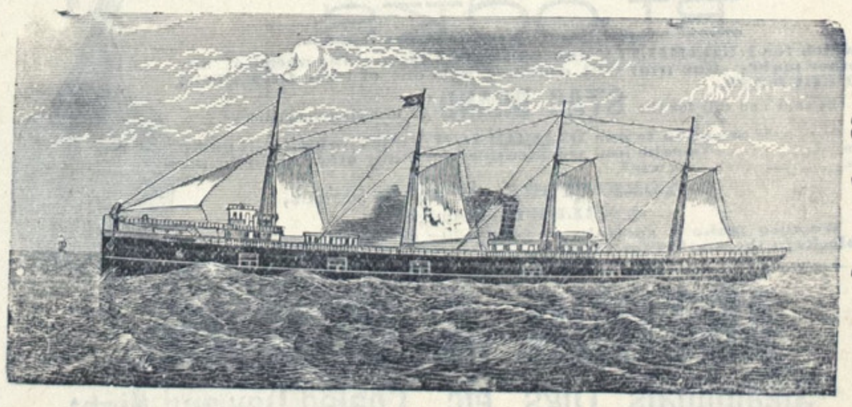

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